FLEET OWNER

McGRAW-HILL'S MAGAZINE OF FLEET OPERATIONS

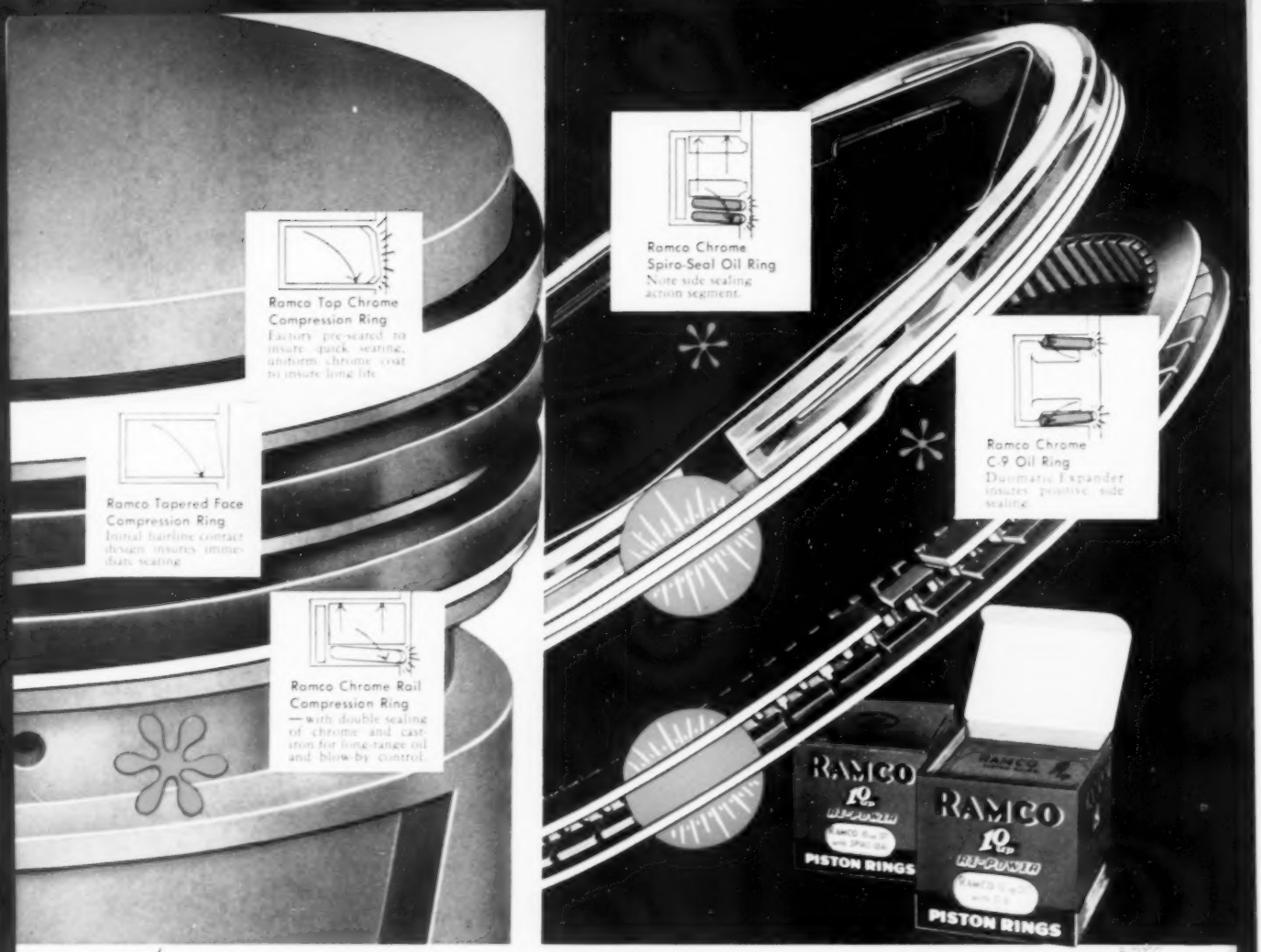
FEBRUARY • 1958
50 CENTS

Promoting From Within . . .

How to train tomorrow's top men step by step

A 16 page special report on
TODAY'S INSTRUMENTS
How modern fleet shops get the most out of them

Complete contents on p 5



be DOUBLE SURE

Only RAMCO gives you

2 CIRCUMFERENTIAL EXPANSION* Action Oil Rings

—the right one for any age engine

*** CIRCUMFERENTIAL EXPANSION ACTION GIVES YOU:**

Immediate, No-Drag Seating—stops oil pumping, ups gas mileage. Chrome rails increase ring life.

Sure-Fire Oil Control—even under high vacuum deceleration conditions. Positively seals top and bottom of ring lands against "oil creep" on all piston strokes.

Automatic Adjustment to Wear—adds new car miles to rings, cylinders, pistons.

For longer engine life—longer road time between overhauls—for top road power and oil economy—more and more fleet operators are calling for RAMCO 10-Up Piston Ring Sets.

They know they'll get the *right* RAMCO 10-Up Set for their engines—be it car, truck, taxi, bus of any age. Each 10-Up Set includes either the Chrome Spiro-Seal or Chrome C-9 oil rings, whichever is right and best for specific engines. BOTH have years-ahead Circumferential Expansion action!

In that set, too, are advanced RAMCO-designed compression rings . . . a just-right combination of top chrome, chrome rail and cast-iron types for years-ahead ring performance.

That's why—when *you* re-power—BE DOUBLE SURE! Rely on RAMCO 10-Up Sets!

RAMCO 10 up PISTON RING SETS

RAMSEY CORPORATION, St. Louis 8, Mo.
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Cost-per-Mile Going Up?

Look at the Rim

before you blame the Tire

See for yourself how **Goodyear Rims** reduce tire failures

Note how narrow base forces beads together, causing excessive sidewall flex. Result: all kinds of tire trouble.

First and only proved lightweight carbon steel rim. Tire rolls on broader base, with less flexing, less heat. Proved in 8 years of constant use.

Exclusive Goodyear Bond-a-Coat finish resists corrosion and discoloration indefinitely.

Looking for a way to cut tire costs? Look at your rims. The right rim for your tires can make all the difference in lowering cost-per-mile.

As the picture shows, Goodyear Wide Base Rims are specifically made to insure longer tire life. On these rims, tires roll on a greater volume of air, to reduce such common causes of tire failure as tread cracking, tread wear, sidewall failure, ply separation and bead failure.

In fact, experience proves that these scientifically engineered rims make possible up to 30% more service from every tire.

What's more, Goodyear Wide Base Rims are far lighter than old style rims – enabling you to reduce your unsprung weight. *This can mean a pay load increase of as much as 100 pounds.*

Let the Goodyear Rim Engineer give you the whole story on these modern rims, and what they can do to lower your tire costs. See your local distributor or write: Goodyear, Metal Products Division, Akron 16, Ohio.

Watch "Goodyear Theater" on TV – every other Monday, 9:30 P.M., E.S.T.

60

Buy and Specify **GOODYEAR** *More tons are carried on Goodyear Rims than on any other kind*

METAL PRODUCTS DIVISION

"We lick lubrication problems before they start—and keep our maintenance costs way down"

"Every time we overhaul a truck, we find that the motor has been kept in clean, efficient operating condition. Thanks to Texaco D 303 Motor Oil HD, we never have trouble with carbon deposits, sludge or sticking rings. Naturally, this means a great saving to us in maintenance costs and parts replacement."

. . . R. A. Mueller, vice president of Commercial Truck Leasing, Inc., National Truck Leasing System Affiliate in East Hartford, Connecticut

"Texaco keeps all other lubricated parts of our trucks in excellent running condition, too. For chassis lubrication, we use Texaco Marfak. For transmissions and differentials we use Texaco Universal Gear Lubricant EP. They give us superior protection and greatly help in reducing our maintenance costs. We use Texaco lubricating oils and greases exclusively, of course."

Here's how these Texaco products can help *you* protect your truck or bus fleet—and reduce maintenance costs too:

1. Texaco D 303 Motor Oil HD is especially refined for heavy duty service in gasoline and diesel engines. Because it is fully detergent and dispersive, it keeps engines clean and rings free for full compression and complete combustion.

LUBRICATION IS A MAJOR

(PARTS, INVENTORY, PRODUCTION,

You get more power, use less fuel, need fewer overhauls.

2. Texaco Marfak gives full protection against wear and rust in chassis bearings. Marfak Heavy Duty 2 in wheel bearings. They seal themselves in, seal out dirt and moisture...can't be squeezed or pounded out.

3. Texaco Universal Gear Lubricant EP offers the extra protection of an extreme pressure additive. It eliminates friction-drag between meshing, rotating parts.

A Texaco Lubrication Engineer will be glad to help you lick your lubrication problems, by thoroughly surveying your operation and recommending the best lubricants for superior protection and low maintenance costs. Just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write:

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IN ALL 48 STATES

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DOWNTIME, MAINTENANCE)

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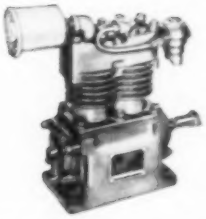
You can count on the Midland Man for the fastest possible delivery of parts for your air or vacuum braking systems. Your nearest Midland Distributor (there are over 250 in the U. S.) carries a complete stock of genuine Midland parts — the parts preferred and used by leading fleet operators because they're built for long, dependable, trouble-free performance. And his factory-trained service men will put your equipment's braking system in top condition and have it back, ready for the road, in jig time.

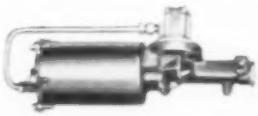
Ask your Midland Man about Midland's money-saving Factory Rebuilt Exchange Plan. You can run your Midland Compressors several hundred thousand miles — then have them re-built at the factory by specialists — and they'll carry the regular new equipment Warranty! The same goes for Midland valves, Hy-Power units, and other products.

Quick, near-as-your telephone Midland service means fewer breakdowns, more efficient use of all your vehicles . . . at a lower cost.

For the name of your nearest Midland Distributor, consult the "yellow pages" or write direct to the factory.



Model 7.4 Air Compressor



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The Only Complete Line of Braking Equipment

M-R
MIDLAND-ROSS CORP.

STORIES TO WATCH FOR IN **FLEET OWNER** FEBRUARY 1958

NEWS AND VIEWS TO PUT YOU OUT IN FRONT

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How medicine can help you pick drivers 32

Mack designs bus for Greyhound trade 55

SPECIAL REPORT: WHAT YOU NEED TO KNOW ABOUT INSTRUMENTATION

What instrumentation means to fleet PM 73

For the first time, a fleet publication is giving its readers a complete rundown on what instruments are available, what they can do for you and where you can get them.

Survey: How fleets rate instruments 74

FLEET OWNER asked 687 fleet men what instrument use had done for their maintenance. Their answers tell a story of top interest to the industry. And their future plans show the real measure of instruments as a PM tool.

What instruments do and who makes them 78

Here's a complete listing you'll want to keep on hand. It tells you exactly what instrument you want for a job you need done. And tells you where you can get it.

How three top fleets use instruments 80

These M. E. Award winners know how to get the most out of instruments. Their tips and experience will point the way to smoother, better shop work for your fleet.

It's time to train tomorrow's executives 90

This fleet realizes that if it is going to take advantage of future business opportunities, it will need trained men to fill top slots. Here's how it gets them.

Trailer PM forms—the way to big savings 95

Third in FLEET OWNER's form series, this story will show you how you can make sure your equipment gets the best in service—even when you interchange.

For more contents turn to next page

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FEBRUARY, 1958 • VOL. 53, NO. 2

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Hand tools: How to use socket wrenches 126
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Watch for these sections in your March Data Book

Truck stops—an expanded guide to truckers' facilities around the country that will give you a simple means of planning routes for both speed and comfort. It's an easy way to find what your drivers will have available—whether there are sleeping facilities, teletype and other essential details.

Specifications and service data—Covers trucks, buses and passenger cars. Here's an invaluable addition to your PM tools. It's a carefully checked guide to the facts you'll want to have on hand during the coming year.

State regulations—An easy-to-read rundown on state requirements: Includes mudflap specifications, size-and-weight limits, safety equipment laws, and turnsignal data. Here's a key to conformity with regulations wherever your vehicles travel. All these sections are "musts" for trouble-free operation.

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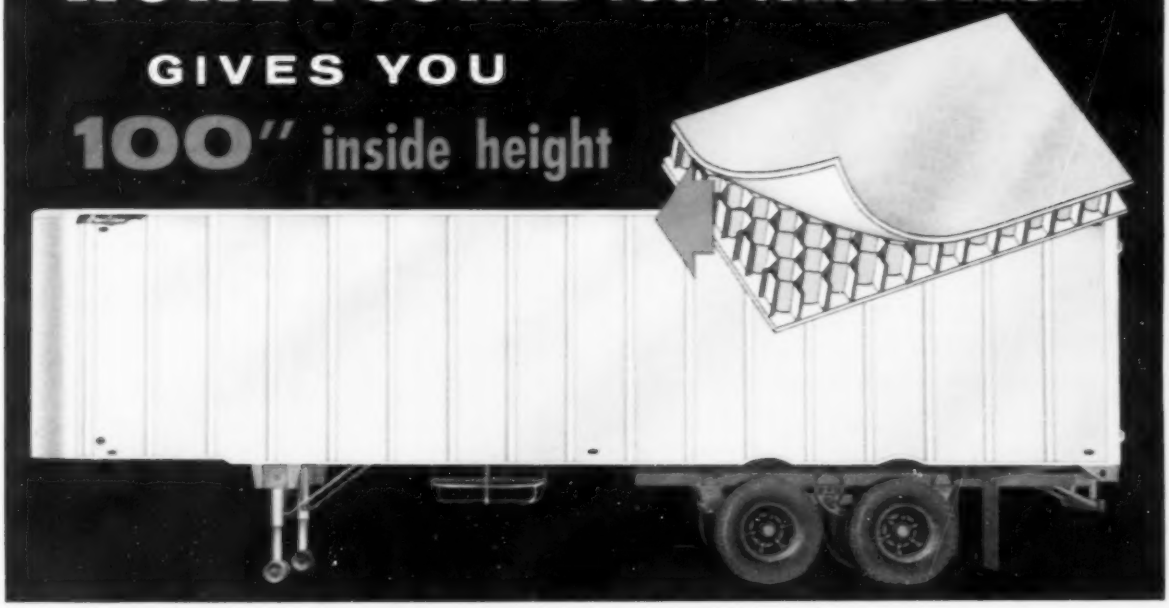
The Great Dane

LEVEL-LOADER

HONEYCOMB roof construction

GIVES YOU

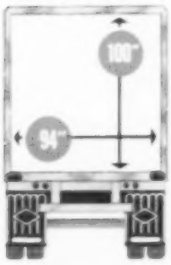
100" inside height



The new honeycomb roof panel construction used in the Level-Loader gives you a full 100" inside height from front to rear. There are no roof bows in this unit and the smooth interior roof lines allow stacking right to the top. A 94" inside width plus the inside height of 100" in this straight-floor unit gives you more payload capacity than many drop-floor trailers.

Used extensively by the aircraft industry, the honeycomb panels provide greater roof strength than a solid aluminum roof of equal weight. This unique construction provides uniform strength the entire length and width of the Level-Loader. The double skin of the roof panels gives an added safety factor for cargo protection, at the same time providing a semi-insulated, cooler cargo space.

The newly designed, extra strength upper 5th wheel is only 2¼" thick and it is 47¼" from the ground with the trailer unloaded and level. At the rear this unit has a 49½" floor height for level dock loading. The steel-framed rear door opening gives you 91" clear width, 94⅛" clear height.



Compare the Great Dane Level-Loader rectangle with any other on the road

1. 100" inside height, from front to rear.
2. 94" inside width, no lining required.
3. 12'6" over-all height with 10:00 x 20 tires.
4. Rigid, one-piece welded steel rear frame.
5. Special extruded aluminum side rails.
6. Optional front with 10" or 18" radius corners

For complete specifications on the Level-Loader—the giant of the straight-floor trailers—see your Great Dane man.

GREAT DANE TRAILERS

SAVANNAH, GEORGIA

ACROSS THE NATION

PORTLAND, OREGON

Dwyer Lumber Co., use ALLSTATE in logging and milling

TULSA, OKLAHOMA

Tulsa Crude Oil Purchasing Corp., use ALLSTATE in oil field hauling

HAINES CITY, FLORIDA

B. C. COOK AND SONS fruit haulers count on the efficiency of ALLSTATE tires

MORE TRUCKS ARE ROLLING ON ALLSTATE TIRES THAN EVER BEFORE!

Everyday more truckers are switching to ALLSTATE tires, because ALLSTATE tires stand up under thousands of punishing miles and still give top performance at lower cost per mile.

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SEARS ROEBUCK AND CO

ALLSTATE

SALES AND SERVICE IN OVER 700 RETAIL STORES

EXPRESS CARGO	EXPRESS HAULER	RUGGED LUG
Our finest dual-bead truck tire with 40% more tread for faster braking in all kinds of weather conditions	New step-down design effects rapid heat dissipation, runs cool at higher road speeds	Rugged lugs for more traction, plus 65% deeper skid depth adds extra life and extra miles

February's Story Behind the Story:

Instruments: How The Special Report Was Developed

THE FIRST INDICATION that a round-up on instruments would be important to the readers of FLEET OWNER came at an SAE meeting in October, 1956. During the discussion period following a paper, the subject of instruments came up. In the hour-and-a-half exchange of information it became apparent that not even the SAE members themselves were aware of all the instruments being used today. It was also clear that there was a great deal of interest in the subject.

During the next six months . . .

. . . a questionnaire was developed to send to FLEET OWNER's list of maintenance supervisors. At the same time, all instrument manufacturers in the United States were contacted and asked to supply us with a description of the instruments they marketed. They were also sent a copy of the questionnaire and asked to check it for corrections, additions and or suggestions. Their replies were correlated and considered, and the final questionnaire was made ready for mailing to the list of maintenance supervisors.

During July and August, 1957 . . .

. . . the replies to the questionnaire kept coming in. In the early part of September, 1957, the compilation of the replies was made. The regular confidential report was sent out to all who returned a completed questionnaire.

At this point, we had the following information: a survey covering the experiences of 867 fleet owners, a complete list of all manufacturers who make instruments, and a description of each of the instruments used in fleet maintenance. We called a staff conference to plan the method of presentation. During the conference, several of the staff pointed out that the special report would be much more complete and carry much more weight if we included several case studies of fleets that had used instruments with success.

So, during November and December . . .

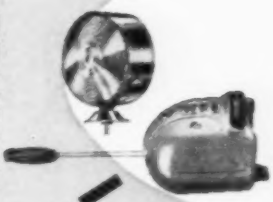
. . . we contacted six of the winners of FLEET OWNER's Maintenance Efficiency Contest who had indicated on their entry blanks that they used instruments extensively. Stories were obtained and pictures taken. Finally, we were ready to go to layout. (We only used three of the case studies. The others will appear in future issues.) So, 16 months from idea date, the special report was published. You'll find it on page 73. Let us know if it helps you.

"The quality of the product will be remembered long after the price has been forgotten..."

YANKEE

#887 STOP, TAIL & TURN SIGNAL SET COMBINATION

2 Thin-A signal lamps with one amber and one red lens for front fender mounting . . . 2 single faced turn, stop and tail lamps with red lenses for rear mounting . . . Wheel-O-Matic switch with flasher and fuse in line . . . mounting brackets, wire and instructions.



#280R RUBBER RIMMED MIRROR HEAD

6" x 9" molded, rubber rimmed replacement head with clear, replaceable glass . . . fits most popular truck mirror arms . . . 3 screw tension adjustment . . . finished in rock hard, black baked enamel.

#1501 SPARE BULB AND FUSE KIT

I.C.C. requires that trucks engaged in interstate commerce must carry spare bulbs and fuses . . . kit holds 16 bayonet base bulbs, 8 fuses and 1 sealed beam bulb in a sponge rubber pad . . . Bonderized . . . finished in glossy, black baked enamel . . . furnished less bulbs.

a must for every fleet maintenance chief!

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OF OVER 70% OF ALL TRUCK AND BUS MANUFACTURERS

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Proved by Fleet Records Everywhere
HIGHEST ENGINE PERFORMANCE
LOWEST MAINTENANCE COST

For reconditioning Always Specify the "ENGINEER APPROVED" PISTON

Expertly engineered pistons make a big difference in engine performance—and operating cost. That's why it's always best to insist on Zollner "Engineer-Approved" Pistons when reconditioning your engines. The big majority of engine manufacturers work hand-in-hand with Zollner engineers in the development of pistons best suited to heavy-duty use. Over 70% of all makes of trucks and buses are Zollner equipped — and have been for years. Only when you use Zollner can you be sure that your pistons are expertly designed and precision-made to individual engine specification for utmost performance and economy of operation.

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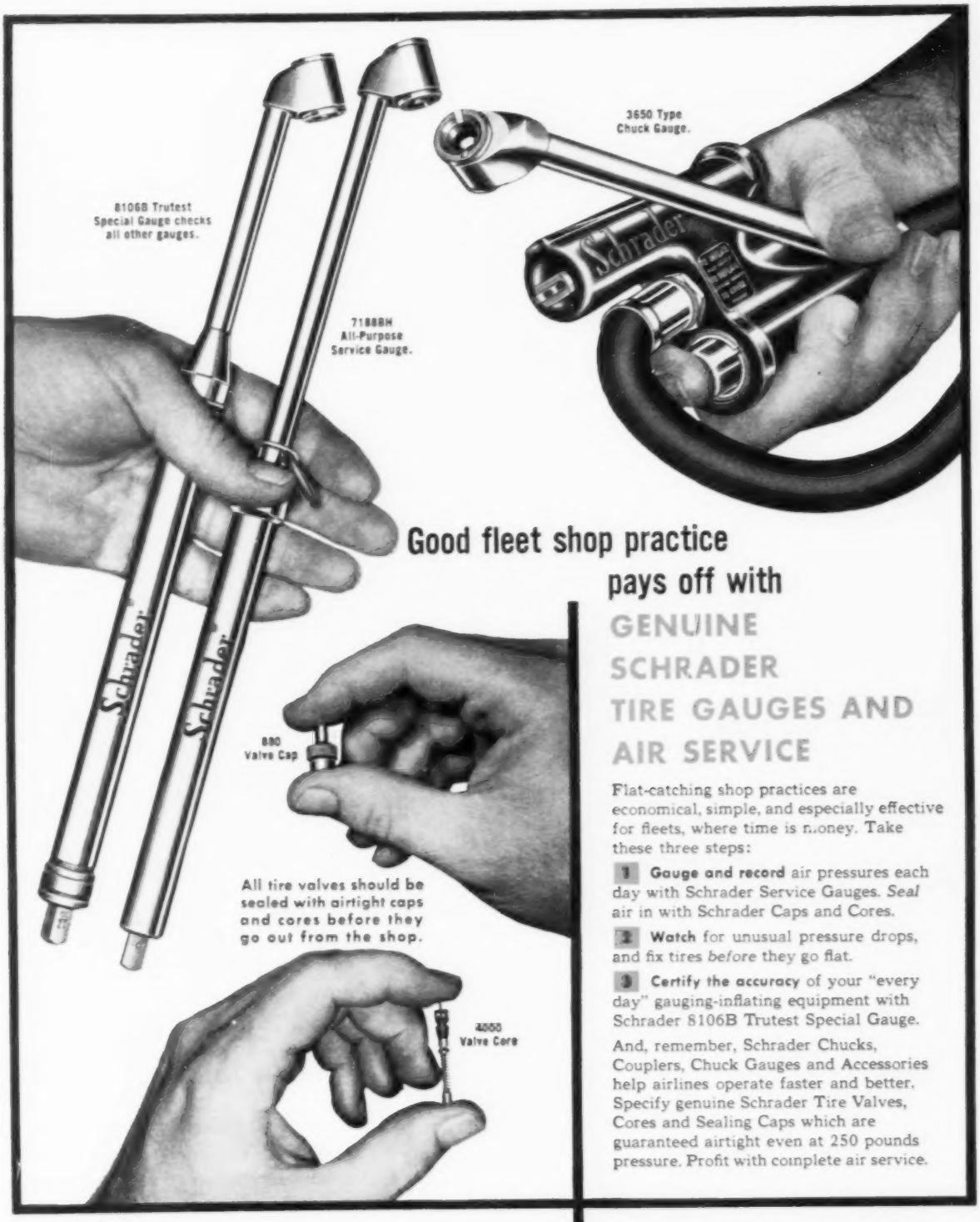

Good fleet shop practice pays off with GENUINE SCHRADER TIRE GAUGES AND AIR SERVICE

Flat-catching shop practices are economical, simple, and especially effective for fleets, where time is money. Take these three steps:

1. **Gauge and record** air pressures each day with Schrader Service Gauges. *Seal* air in with Schrader Caps and Cores.
2. **Watch** for unusual pressure drops, and fix tires *before* they go flat.
3. **Certify the accuracy** of your "every day" gauging-inflating equipment with Schrader 8106B Trutest Special Gauge.

And, remember, Schrader Chucks, Couplers, Chuck Gauges and Accessories help airlines operate faster and better. Specify genuine Schrader Tire Valves, Cores and Sealing Caps which are guaranteed airtight even at 250 pounds pressure. Profit with complete air service.

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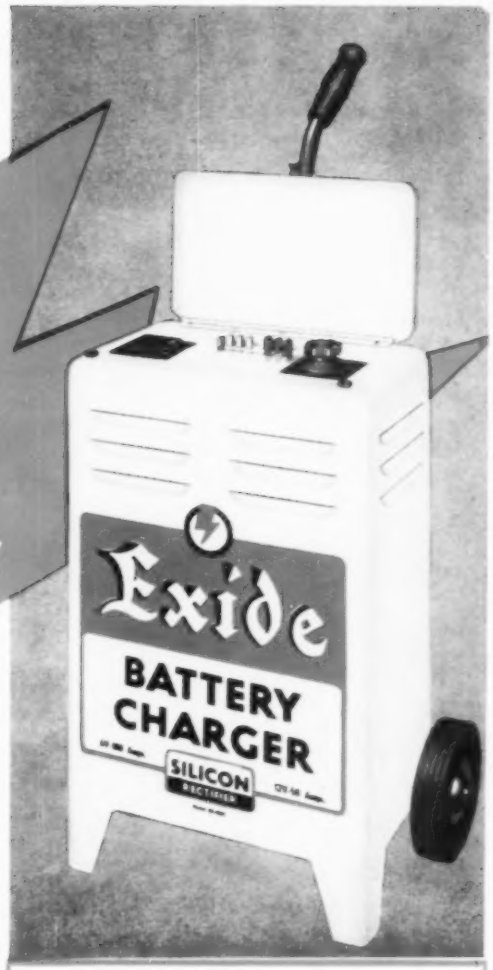
FIRST NAME IN TIRE VALVES
FOR ORIGINAL EQUIPMENT AND REPLACEMENT

FAST CHARGE the EASY way!



Fast charging is really easy with this new Model EX400C Exide FAST CHARGER. All you do is connect the battery, set the timer, and push a button for the charging rate desired.

LIMITED TIME OFFER: **$109.95**

PUSH BUTTON CONTROL—Easy to operate—Selects high, medium or low charging rate.

POWERFUL—Charges 6 v. batteries at 100 amps—charges 12 v. batteries at 50 amps.

SILICON RECTIFIER—New, more efficient, lasts longer—sealed for complete protection.

ELECTRIC TIMER—Accurate electric motor driven clock controls charging time.

OVERLOAD PROTECTION—Circuit breaker protects against overload and reverse battery connections.

GUARANTEED—Complete charger is guaranteed for one year . . . Silicon Rectifier for 5 years.

If desired, you can buy these chargers without the Exide name.

Handy Portable Model EX353B has same features, charging capacity, and guarantee as above. Dimensions: 11½" x 10⅜" x 10⅞". Weighs only 37 lbs.

LIMITED TIME OFFER:

$99.95

SILICON RECTIFIER

Guaranteed Unconditionally

5 YEARS

(FREE REPLACEMENT)

Used in both models shown here, the Silicon Rectifier eliminates the major causes of fast charger failures. Smaller, more efficient, more rugged—lasts longer. Heavy metal housing protects against damage from dirt, moisture or acid fumes.

GET COMPLETE DETAILS

CALL YOUR EXIDE DISTRIBUTOR TODAY!

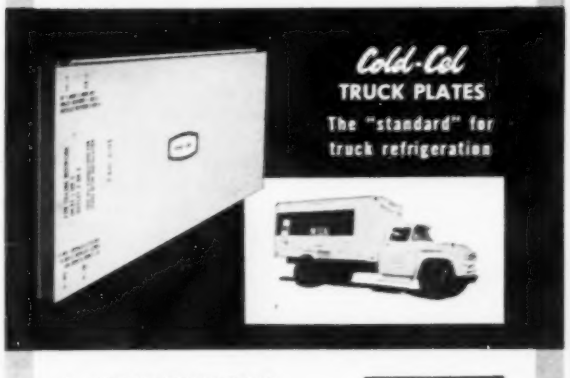
Exide AUTOMOTIVE DIVISION
P. O. Box 6266 Cleveland 1, Ohio

The Stock Market: Fleet Price Listing

HERE'S AN EXPANDED LISTING of fleet stock prices that includes 50 truck and bus companies. Quotations are as of January 22, 1958, from Shields & Co., 44 Wall St., New York, N. Y. The columns of figures, reading left to right, show total dividends paid in 1957, current bid and asked prices, highest and lowest prices quoted for the stock in 1957. Abbreviations in parentheses after each company name indicate where that stock is traded: OTC (over the counter), NY (New York), Phil (Philadelphia), Balt (Baltimore,, Bost (Boston), Cinc (Cincinnati), Amer (American), MidWest (Mid West), PacCoast (Pacific Coast).

				1957	
	Div.	Bid	Asked	High	Low
AssocTransp(OTC)	—	3¾	4½	6	3½
AssocTruckLi(Midwest)	.35	8¾	9¾	—	—
BaltTrans(PhilaBalt)	.75	7⅞	—	11⅞	6⅛
CentWisMotTransp(OTC)	.40	5½	6	—	—
CincTrans(Cinc)	.30	4¼	4½	4¾	3¾
CityCoachLi(OTC)	—	8½	10½	—	—
ConsolFrtways(OTC)	.80	15	15½	18⅛	11½
ContTranspLi(OTC)	.70	8⅛	8¾	—	—
CooperJar(Amer)	.50	6¾	6⅞	9½	6½
DallasTrans(OTC)	.35	5¾	6⅛	5¼	4½
DenverChi(OTC)	1.25	19¼	20¼	24	17⅛
Denver Tramway(OTC)	—	13½	14½	—	—
Det&CanadaTun(OTC)	1.00	13¼	14	16½	12⅛
EastMassStRwy(Bost)	—	¾	1¼	1⅝	⅞
FifthAvCoach(NY)	2.50	22	22¾	29¼	19½
FtWorthTrans(OTC)	.40	4⅜	4⅝	—	—
GarsRways(MidWest)	5.00	2¾	3¼	—	—
Galveston-Houston(OTC)	1.00	7	7¾	8¼	5¾
Greyhound(NY)	1.00	14⅞	15	16⅞	14
IndianpTrans(OTC)	—	15¼	—	—	—
InterstaMotFrt(OTC)	1.00	14⅛	15⅛	16⅝	14⅝
InterstaMotLi(OTC)	—	11	11⅝	—	
KansasCityPS(OTC)	—	2¾	3	4¼	2½
LosAngTrans(OTC)	1.40	17¾	18¼	18⅛	15½
McLeanTrucking(NY)	.51	8	9½	10¾	7⅝
MemphisStRwy(OTC)	.20	2	—	2½	2
NatCityLi(NY)	2.00	20	20⅛	24⅝	18¾
NiagFrontTrans(OTC)	.60	7	7½	9¼	7
OverniteTransp(OTC)	.64	12½	12¾	—	—
PIE(OTC)	.80	11½	12	15¼	10½
PhilaTransp(Phila.Balt)	—	6	6¼	9⅞	4¼
PittRways(Amer)	.50	5½	5¾	7½	4⅞
PortlandTrans(OTC)	.25	4⅞	5¼	—	—
RwyEquip&Rlty(PacCoast)	.50	5¼	5⅞	6	4½
RoadwayExp(OTC)	.70	8⅜	8⅝	9¾	8
RochesterTrans(OTC)	.40	4	4¾	5½	4
RyderSyst(OTC)	1.00	14¾	15⅞	19⅝	13¼
SanAntonioTrans(OTC)	.60	10	—	—	—
StLouisPS(MidWest)	1.30	7¾	7¾	—	—
SyracuseTrans(OTC)	2.00	17	—	19¼	14⅝
TransconFrtLi(OTC)	—	13	15	—	—
TransconBusSys(OTC)	—	2⅛	2⅝	—	—
Twin-CityRapTrans(NY)	1.80	12¼	12¾	17	9⅞
USFrtLi(NY)	2.00	23¼	24	34¾	20¼
USTruckLi(OTC)	1.60	19¼	21	21¼	18½
UnitedTraction(OTC)	—	17	—	—	—
UticaTrans(OTC)	.30	3¾	5½	—	—
WatsonBrosTransp(OTC)	.44¾	6	6⅝	7¾	5¾
WestTownsBus(OTC)	—	2	—	—	—

For Uniform Product Temperature



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TELLS HOW TO GET DUAL-DRIVE PERFORMANCE WITH SINGLE AXLE ECONOMY!

SPECIAL! COMPLETE GUIDE TO PROPER TANDEM SELECTION!

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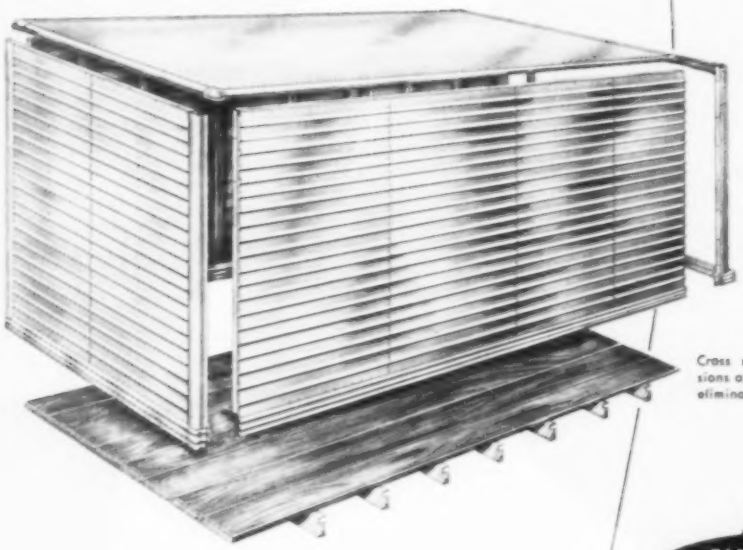
Another

Announcing... THE ONE NEW AND DIFFERENT TRUCK BODY KIT... *Kingham* SPACEMASTER!

Cross section of top extrusions attached to the roof and aluminum corrugated side . . . prevents leakage.



The new Kingham SPACEMASTER Truck body kit is made of all aluminum construction. The difference in this kit to the others: A new one piece roof guaranteed not to leak, newly designed extrusions and castings seal off openings and do not allow air or water to be pulled into the body creating a vacuum.

Cross section of rear corner post extrusion attached to side and rear door . . . this type of extrusion seals the corrugation at the end and seals the body panel.

Cross section of bottom extrusions attached to the side panels eliminating leaks.

KINGHAM SPACEMASTER:

EASE OF ASSEMBLY
Requires only two man hours

LEAK PROOF
340 possible leaks stopped in 16-foot long roof

MAXIMUM CAPACITY
In lengths of 12 to 20 feet with minimum weight

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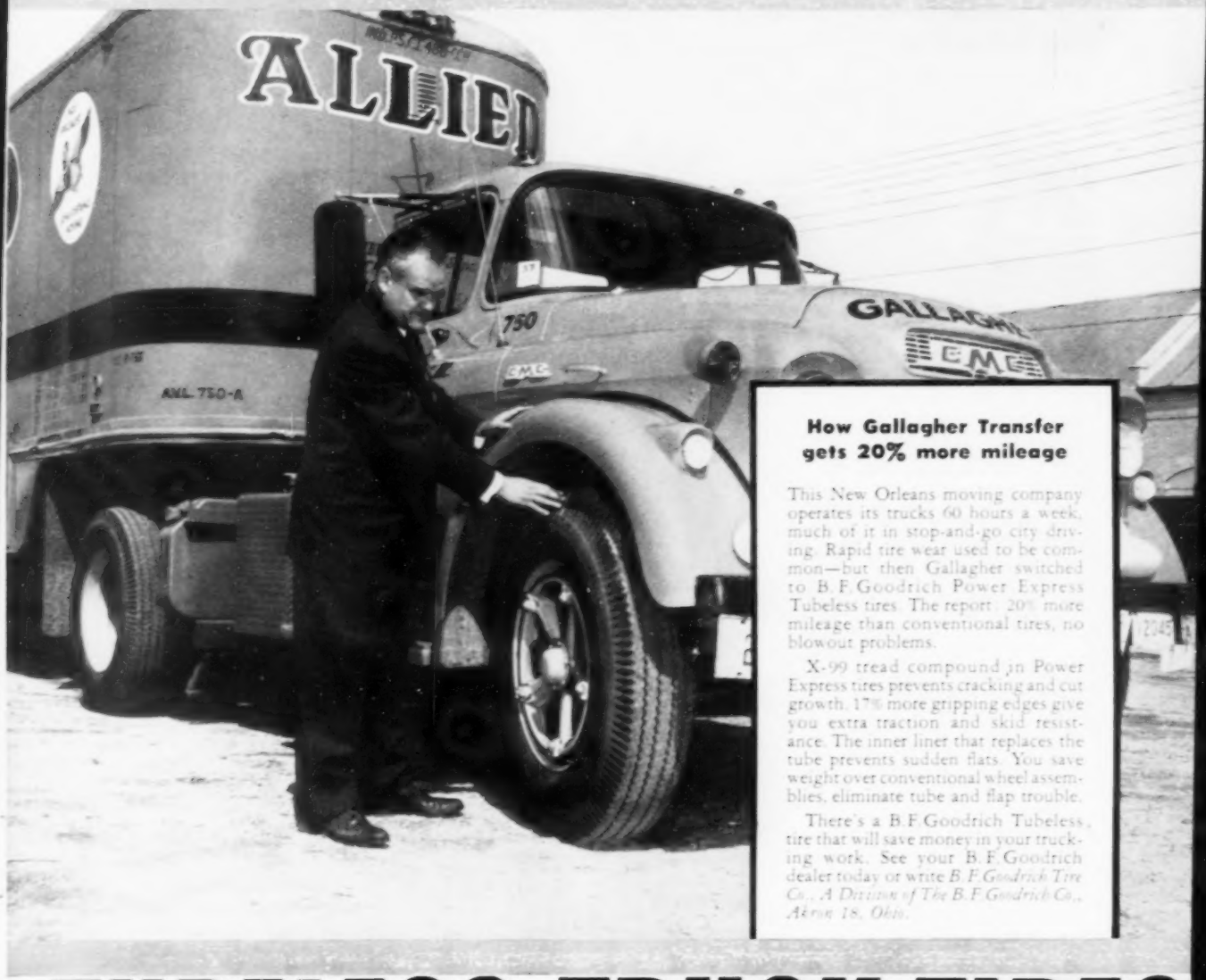
Another tubeless truck tire success story

B.F.Goodrich



How Gallagher Transfer gets 20% more mileage

This New Orleans moving company operates its trucks 60 hours a week, much of it in stop-and-go city driving. Rapid tire wear used to be common—but then Gallagher switched to B.F.Goodrich Power Express Tubeless tires. The report: 20% more mileage than conventional tires, no blowout problems.

X-99 tread compound in Power Express tires prevents cracking and cut growth. 17% more gripping edges give you extra traction and skid resistance. The inner liner that replaces the tube prevents sudden flats. You save weight over conventional wheel assemblies, eliminate tube and flap trouble.

There's a B.F.Goodrich Tubeless tire that will save money in your trucking work. See your B.F.Goodrich dealer today or write *B.F.Goodrich Tire Co., A Division of The B.F.Goodrich Co., Akron 18, Ohio.*

TUBELESS TRUCK TIRES

B.F.Goodrich

Smileage

Your B.F.Goodrich dealer is listed under Tires in the Yellow Pages of your phone book

Specify B.F.Goodrich Tubeless tires when ordering new equipment

Truck "Buys" Look Good in '58

And other late news from the automotive capital: Truck manufacturers see peak year ahead . . . Delays reported on introduction of two new diesel lines . . . New full circle brake developed for off-the-road vehicles.

THERE'S CONSIDERABLE TALK IN DETROIT that fleet operators will find 1958 a good year for vehicle buying. Consensus is that you're in a good position to make money-saving deals.

Ford's entry into the real heavy-duty field means there will be keener competition in that area—and it could lead to good discounts.

And there's a report that another truck manufacturer is seriously considering encouraging its dealers (in rural and semi-rural areas) to dual-up with farm equipment franchises. The manufacturer's hope is to step up truck sales, and it appears to put the fleet operator in a good position: The dualing of truck and farm equipment franchises gives the dealer a wider area from which to show a profit.

A dual-franchised dealer may be able to dicker more in order to make a truck sale. This may have little effect on large fleet sales but could prove attractive to the buyer of one or two vehicles.

■

Truck production last year hit its lowest point since 1947, except for 1954. However, monthly reports for the last half of 1957 show truck sales to be on the upgrade, running ahead of the second half of 1956.

Furthermore, there's optimism in Detroit that 1958 will be a better year than might have been predicted six months ago.

Year-end statistics released by the Automobile Manufacturers Assn. show that output of the majority of truck builders tapered off in 1957 as compared with 1956. Chevrolet produced almost 2000 less, GMC almost 22,000, Divco 700, Dodge and Fargo combined about 15,000, International about 16,000, Mack about 1000. Ford was the big gainer, up about 40,000. White and Diamond T also produced more than in 1956.

M. C. Patterson, president of Dodge Division, says, "There is every reason to believe 1958 will be another fine year for the trucking industry. The importance of the industry to national prosperity becomes readily apparent when it is realized that in 1957 one of every ten persons in the labor force (more than 7.25 million Americans) received his paycheck from trucking: production, sales, servicing or transportation."

White Motor's president, Robert F. Black, terms 1957 a "breather" for the heavy-duty truck manufacturing industry, but he predicts an upward trend in industry registrations of these over-the-road vehicles before the middle of 1958.

Black says one favorable development is that a growing number of states passed legislation in 1957 to liberalize load limitations and lengths of truck-trailer combinations.

Also indicative of an optimistic outlook is news that Chevrolet plans a 44% expansion of its factory and office space at its St. Louis plant.

■

A heavy duty, full-circle brake has been developed by B. F. Goodrich Aviation Products for use on large tractors, scrapers and earthmovers. Goodrich says it's the first hydraulic-drum type unit with 360 degree expand-tube actuation. It has nearly constant lining pressure all around the drum at half the usual maximum lining pressure of anchored shoe brakes.

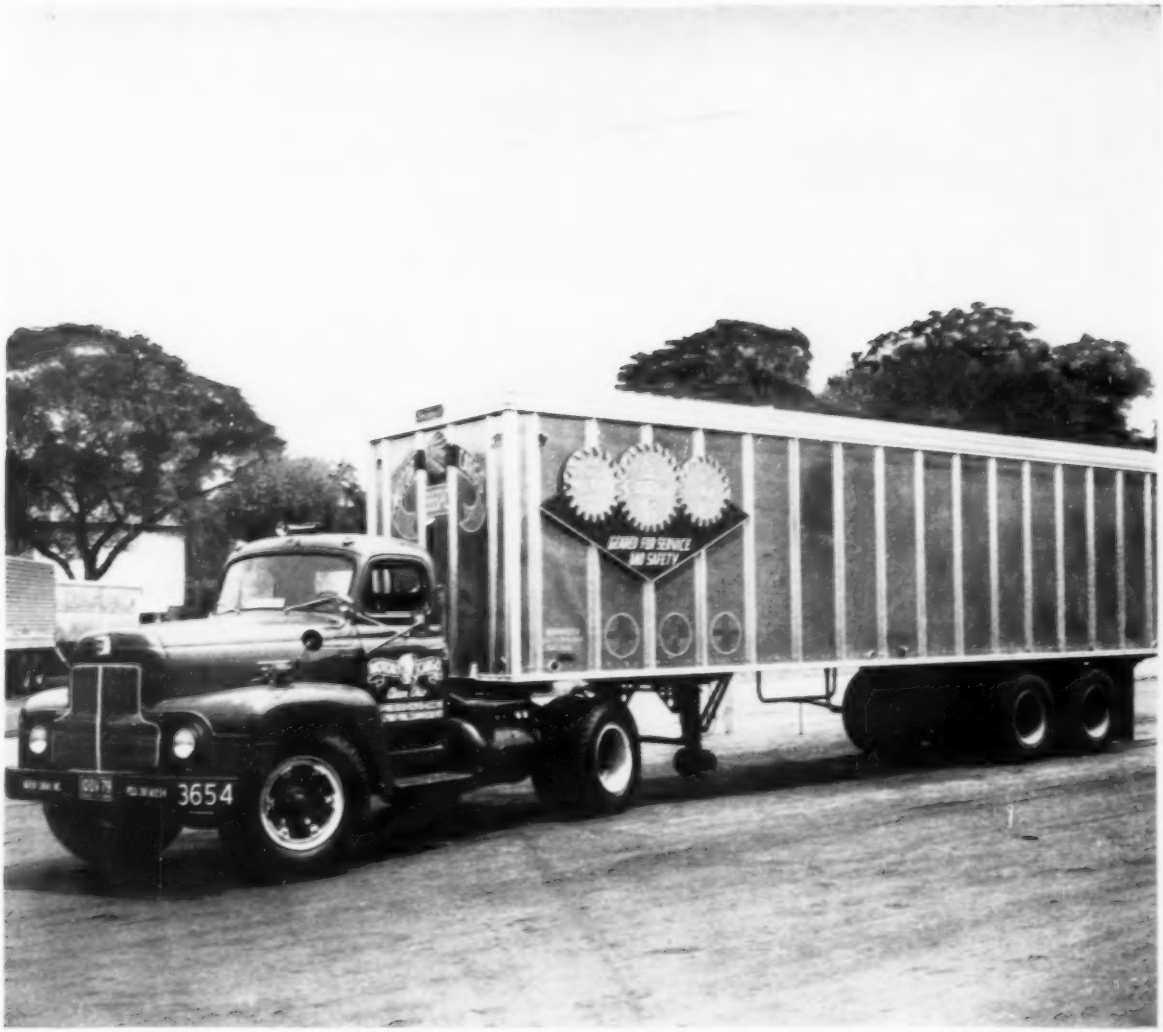
An automatic adjustment gives constant braking efficiency for the life of the lining, according to Goodrich. The brake needs no lubrication, eliminates mechanical-shaft or cam-alignment problems, and can be disassembled readily with standard hand tools only.

■

A V-line of diesels for trucks, planned for introduction later this year, has been delayed. According to Detroit reports, a new plant which will have facilities for V-line engine assembly won't be ready till late 1959. Original plans called for the plant to be open and in production sometime late this summer or early fall.

Work is still proceeding on prototypes, and limited production has begun on some of the V lines. However, real assembly-line production has not been reached yet.

Rumors that Ford would introduce a diesel engine truck, either at its Louisville truck show in early January or later, are discounted by a top Ford executive. He told FLEET OWNER that Ford at this time has no plans underway to develop or produce a diesel truck engine.



Geared by FULLER . . .

415 durable Fuller Transmissions cut Motor Cargo's maintenance costs

"The 415 Fuller 5-speed 5-A-43 Transmissions in our fleet give a long useful life of approximately 325,000 miles in 3 years, before we put them on city pick-up work for another 3 years. Maintenance cost is extremely low," says Joseph B. Boynton, Superintendent of Equipment and Garages for Motor Cargo, Inc., Akron, Ohio.

Fuller Transmissions provide not only long and satisfactory service but also they help pull the payloads through on schedule. *Right* gear ratios, smoother shifting, faster trip time, longer engine life . . . add up to greater profits for Fuller Transmission users.

Ask your truck dealer now for full details on the most efficient, easiest-shifting Fuller Transmission . . . designed with your specific job and equipment in mind.

Above: Motor Cargo rig—International Tractor is equipped with 5-A-43 Fuller Transmission.

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GMC announces...
A NEW IDEA IN

GMC's NEW ENGINEERED ECONOMY is now offered in the DR860 Diesel illustrated above. The tractor has a 90-inch b.b.c.—is rated for 65,000 GCW hauling.

DIESEL HAULING

–for eye-opening new fuel mileage!

IT'S a brand-new engineering concept—from engine to axle. And it brings together just the power-train components you need to handle your particular hauling requirements *with a Diesel economy unequaled in 2-cycle history.*

Its secret is the way GMC's new 6-71SE Diesel, with economical 60E injectors, is governed at just the right r.p.m.'s for the most fuel-saving road-speed. Its power is fed into just the right transmission and rear axle ratios for load and highway conditions.

Say, for example, you haul 60,000 lbs.: Transmission and axle ratios are chosen specifically to operate the load at maximum legal speeds while the engine speeds are controlled by an Economy-Range Governor for maximum operating economy. You roll at top legal speeds at only 1650 r.p.m.'s—and without "lugging" your power plant.

For other road and load requirements, the governed speeds would be different. So would transmission and axle ratios. But the result would be the same: to get ultimate efficiency from Diesel power, *slashing fuel use to a new low.* And to get it at engine-saving speeds that mean *lower maintenance to boot.*

Add the other GMC Money-Maker advantages: A choice of 72-inch c.o.e. or 90-inch cabs. New super-stamina engineering. Truck Air Suspension. New hydraulic power steering, to name a few. And it's easy to see why you should look into a GMC—at your dealer's—before you buy another truck!

GMC TRUCK & COACH—*A General Motors Division*

Only GMC Haulers offer all these features:

TRUCK AIR SUSPENSION • SUPER-ECONOMY DIESELS
PLUS-PAYLOAD 90" CABS • ALLISON TORQMATIC DRIVE
½ TON LESS CURB WEIGHT • ECONOMY-RANGE GOVERNORS
HORSEPOWER WITH HORSE SENSE

GMC–America's Ablest Trucks

Available in models from ½ to 45 tons

"Big 3" Aim at Small Car Sales

THE SMALL AND/OR FOREIGN CAR ISSUE is still a hot topic in Detroit, and there is every evidence it will get hotter. For example:

One division of the big three has stepped up its small-car development program. This is a result of large gains made in the U. S. by foreign cars. (Another reason: the increases in sales of the entire Rambler line.)

A spokesman told FLEET OWNER it looks now as if his division will be ready with a small car of its own in time for introduction in 1959. This could indicate the division feels there's a good chance of small cars gaining a substantial portion of the market.

Another source indicated that part of its problem is combing out the bugs in the production of an all-aluminum engine. Apparently, this particular car manufacturer feels that perfection of a lightweight aluminum engine will be the key factor in its successful production and introduction of a small car.

Originally, this division was thinking (and not too seriously) that it might bring out a small car in 1960 "or thereabouts." Now the schedule has been speeded up. There is still no definite decision on the matter, but at least the development program has been stepped up considerably, lending substance to speculation that another small car will make its debut in 1959.

This is just another angle to be added to the over-all question of how small and/or foreign cars might possibly affect your buying patterns. It's still too early to predict a trend that would seriously affect a fleet car's recovery value, but the evidence is piling up.

■

Long-life mufflers of stainless steel will outlast the vehicles on which they're installed. Detroit speculation is that very soon stainless steel mufflers will be standard equipment on cars, trucks and buses.

When the new muffler is developed, it'll represent a substantial saving in maintenance and replacement to the fleet owner.

■

Servicing air-suspension models can be a tricky business. Here are tips from Chevrolet on how to treat their air-suspension units: (1) Undercoating material should not be allowed to contact the air reservoir bellows or lower control-arm pistons. To maintain the proper oil level in the compressor, the air-compressor oil-drain hose must be no higher at any point than its compressor connection.

(2) When raising an air-ride equipped car on a twin-post hoist, the operator should be sure the car is centered over the rear hoist. This is to prevent possible damage to air-ride lines entering the lefthand reservoir.

(3) On some air-suspension cars, rear air springs may be damaged if the rear shocks are removed or uncoupled while the rear wheels are raised off the ground. Sometimes air-suspension car shocks are not interchangeable with those used on conventional models. It's a good idea to check the car manual specs first.

■

Fuel tank air vents on 1958 Plymouths may cause trouble if not properly adjusted, says the manufacturer. If the fuel gage indicates only a half tank of fuel, but on refilling the tank takes just a few gallons, the trouble may be only that the air vent is out of kilter.

Plymouth says air in the tank is vented through a separate chamber in the filler tube. If the vent opening of the chamber is pointed downward, accumulated air in the tank will allow only 10 to 14 gallons of fuel to enter. To correct, make sure the vent opening points upward.

Also on 1958 Plymouths, the manifold heat-control valves should be inspected and lubricated every 1000 miles. A special MoPar manifold heat-control valve solvent (No. 1879318) should be used, applied when manifold is cool.

■

Inventory of four battery sizes only will be needed now to handle the needs of virtually every car on the road, including foreign models. A new battery and tie-down clamp arrangement, developed by Globe-Union Battery Co., Milwaukee, replaces as many as 14 different sizes of standard automotive batteries.

Globe-Union's four-battery inventory comes in four basic sizes, among which you will find a fit for 99% of cars. However, in many cases the fit will be loose—and this is compensated for by the new type of tie-down clamp.

The clamps are slotted, making possible an adjustment which will provide a secure fit for one of the four battery sizes in any car. To complete your battery inventory, you need stock only two different sizes of clamps.

This development is also available to service stations—so if you don't handle your own battery work, you can still get improved service.

The completely new **Studebaker Econ-O-miler:** the *one* taxi designed as a taxi from the ground up!

Announcing

a completely new line of cars for fleet transportation!

Now . . . a complete selection of new Studebaker commercial vehicles built precisely for the job they must do! They bring you savings when you buy—and save for you every day of the year with unequalled operating economy!

Economy is engineered into every Studebaker. The Scotsman, with overdrive, offers mileage unequalled by any other full-sized fleet vehicle. And you get the benefit of the highly efficient Studebaker engines that have time and time again won "Economy Run" victories. With Studebaker's body design, form follows function—plenty of headroom is combined with long, low modern appearance and Studebaker's advanced suspension system offers surprising roadability with maximum comfort.

And remember, every Studebaker is built with *extra craftsmanship* that assures greater dependability when you drive—greatest value when you sell! Today, get the full story—call your Studebaker-Packard dealer, or write Truck-Fleet Sales Department, Studebaker-Packard Corporation, South Bend 27, Indiana.

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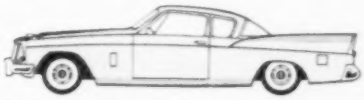
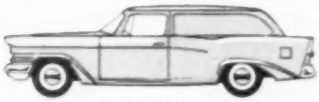
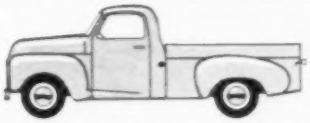
The Scotsman 2-door... Utility-Sedan, or America's lowest-priced, 6-passenger sedan! Only **$1795***



The Silver Hawk... the buy for lease or daily rental, sports car appeal at a standard sedan price. Only **$2219***



The Scotsman Panel-Wagon... a station wagon that doubles as a delivery vehicle. Only **$2088***



The Scotsman Pickup... lowest-priced ½-ton pickup! Low upkeep, greatest economy! Only **$1595***

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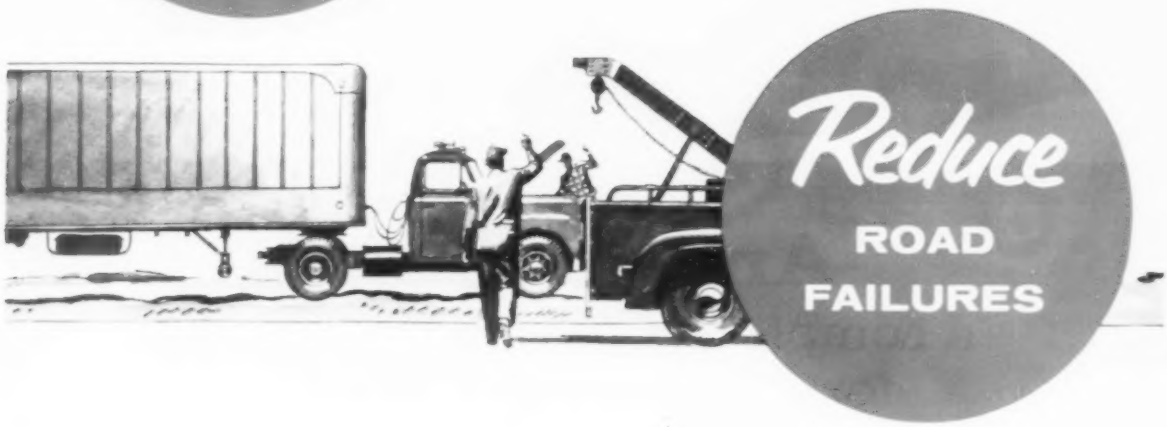

Use PHILLIPS 66 HEAVY DUTY MOTOR OILS

Phillips 66 heavy duty motor oils can help you get maximum miles between overhauls and reduce the risk of engine failures. These outstanding motor oils have a *proved* record of protecting truck engines against carbon deposits, corrosion, foaming and acid action that can lead to frequent overhauls and costly road failures.

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ECONO-COLD OFFERS YOU LOWER COSTS . . . BETTER CARGO PROTECTION

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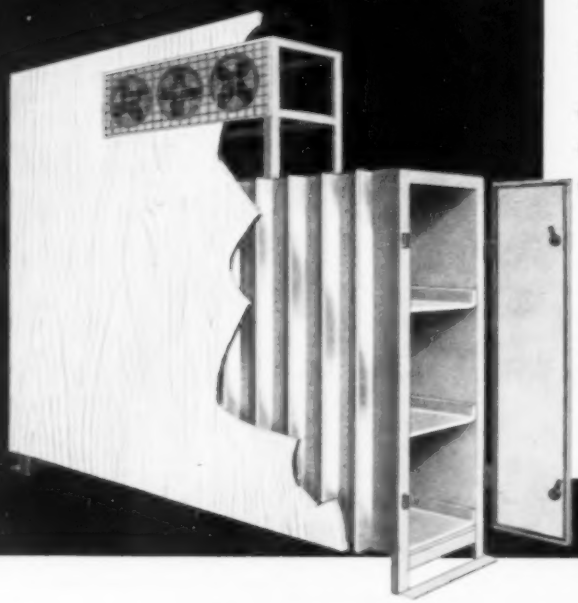
maintains uniform lading temperature within the range of −10°F. to 60°F. A patented product of Liquid Carbonic, ECONO-COLD is an easily installed automatic dry ice refrigerating unit.



ECONO-COLD Saves You Money

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ECONO-COLD Provides Better Cargo Protection

- Constant Temperature Refrigerant
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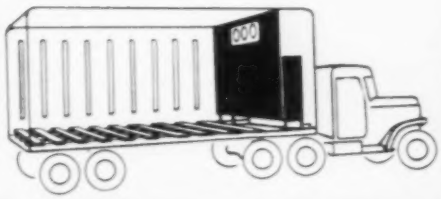

At purchase, ECONO-COLD saves you 75% of the cost of a comparable size mechanical unit. Then . . . year after year . . . you are absolutely free of expensive repairs! Down-time is a thing of the past. There's nothing to wear out or break down. The only moving parts are three inexpensive fan motors. Even when not in use, there's no deterioration . . . it's always ready to go!

The unit is made of non-corrosive aluminum . . . outlives mechanical units 3 to 1 . . . weighs only 280 lbs. in the large size.

ECONO-COLD refrigerating capacity does not fall off in hot weather. Constant temperature refrigerant provides uniform cargo protection year-round. Wrap-around air circulation reaches all the cargo . . . eliminates hot spots along the floor and reduces spread between top and bottom.

Now every trucker can afford this lower cost automatic refrigerating unit. Remember: you can BUY an ECONO-COLD for the cost of OVERHAULING a mechanical unit. For original equipment or replacement, specify ECONO-COLD.

World's Largest Producer of CO_2

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DIVISION OF GENERAL DYNAMICS CORPORATION

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Tell me how ECONO-COLD will save money for me, and prove how ECONO-COLD safeguards cargoes better.

Name_____ Title_____

Company_____

Address_____

City_____ State_____

Congress Holds Up on Toll Roads

These events made news, too, during the month: Electronics people began aiming their sights at the truck market . . . Georgia came through with a big chunk of transit tax relief . . . And one trucker started a new sales ball rolling.

CONGRESS IS NOW FACED with the problem of whether to reimburse a number of states for toll roads to be included in the new 41,000-mile interstate highway system. By law, any part of the system built with federal money must be toll-free—which would be a boon to truck fleets.

The Commerce Department has reported to Congress that 1,950 miles of toll roads in 26 states have met the criteria for reimbursement by the federal government.

So now it's up to Congress—whether and when to pay those states for the highway mileage. But there is no requirement for Congress to buy the toll roads; they can be a part of the system without being toll-free.

Congress this year is in no mood or position to spend extra millions on buying toll roads. Highway men, then, expect no action on the question of reimbursement any time in the near future.

The total cost of toll roads eligible for "consideration" for reimbursement amounts to $2.59-billion. Congress was told. Since only highways completed or undertaken in the last ten years were considered, most are relatively new and therefore the depreciation is less.

Payment would be made on a depreciation basis, taking the original cost and deducting for the length of time the roads have been in use. Some of the states are expected to throw up stiff opposition to reimbursement proposals, too.

Secretary of Commerce Weeks has told the Senate Public Works Committee that he didn't think the states should be reimbursed for the toll roads—which would mean that, without Federal money involved, the tolls would remain as long as the states wanted or needed them. Weeks adds that if Congress decides on reimbursement, payment should not be made at least until the entire federal highway program is finished.

■

An electronic typing calculator, designed by International Business Machines Corp., offers good news for truckers whose business isn't large enough to require a punch card system. It is office automation, primarily for invoice, order and freight billing operations, and is so simple that any typist can operate it with only a few minutes of instruction. It combines an electric typewriter and a standard 10-key calculator with a magnetic memory core to do the work.

All numerical information is keyed into the calculator which computes it and holds it in "memory" for later processing. The information is automatically typed on the invoice form, in the correct place. Furthermore, the machine extends, carries totals, computes taxes, subtracts discounts, positions decimals, justifies multi-digit numbers and types out the results.

Known as the IBM 632, it has tested 20 to 60% higher production, since one person controls the operation. Copying and computation errors are almost eliminated. It can be programmed to meet any number of situations.

The memory unit can hold gross, net, tax and shipping figures for a final daily total sheet. The typewriter can be used for other purposes. Price is approximately $5600.

■

Tax relief for transit fleets became a large-scale reality in Georgia on Jan. 3, when Gov. Marvin Griffin suspended sales taxes on fares in 15 cities. State Revenue Commissioner T. V. Williams estimated that savings for the affected fleets should amount to as much as $450,000 annually. The governor's action is expected to be confirmed when the General Assembly reconvenes.

The sweeping move was an outgrowth of a study made at the request of the transit people. The original recommendations were for reductions in state motor fuel taxes and vehicle registration fees. Sales-tax relief was not mentioned. A later meeting of the investigating committee revised its proposals, citing the fact that Georgia was the only state taxing transit fares.

■

Everyone's selling at Ringsby Truck Lines, Inc., in a novel contest designed to avoid the usual mid-winter seasonal layoffs. In Ringsby's "Sales for Security" competition, drivers, dispatchers and typists are actually working in competition with salesmen to bring in new customers. The three-month drive, which started last December 1, offers more than $3000 in prizes. Early results indicate the plan has had sizeable success.

Push-button starting!

New Wisconsin Air-Cooled Engine-powered Reefer Kit modernizes every truck in your reefer fleet

Now you can buy a powerful Model ACN 6 Hp. or BKN 7 Hp. Wisconsin Air-Cooled Engine with electric starter and remote control starting button that mounts at a handy, convenient height for operator. Picture at left shows how simply, how easily the Wisconsin Engine is started while operator stands on ground. Your truck battery provides the starting power. This low cost kit will help you maintain good safety records and build your drivers' morale.

Use coupon. Get details.

Obsoletes "Grunt'n Groan" Starting

No more dangerous balancing acts on slippery truck chassis while operator tugs on rope starter. New, low cost Wisconsin Engine reefer kit keeps operator on the ground, eliminates dangerous falls.

WRITE FOR NAME OF NEAREST DISTRIBUTOR

More than 2,000 service stations . . . several near you.

Here's what you get

Model ACN or BKN Wisconsin Air-Cooled Engine with 6 or 12 volt electric starter, solenoid starting switch, choke control, terminal box with receptacle *less* wiring. Complete installation instructions furnished.

WISCONSIN MOTOR CORPORATION
MILWAUKEE 46, WISCONSIN

World's largest builder of heavy-duty air-cooled engines

Please send "spec" bulletin form S-203 with engineering data and prices.
We operate _____ reefer trucks.

Name _____

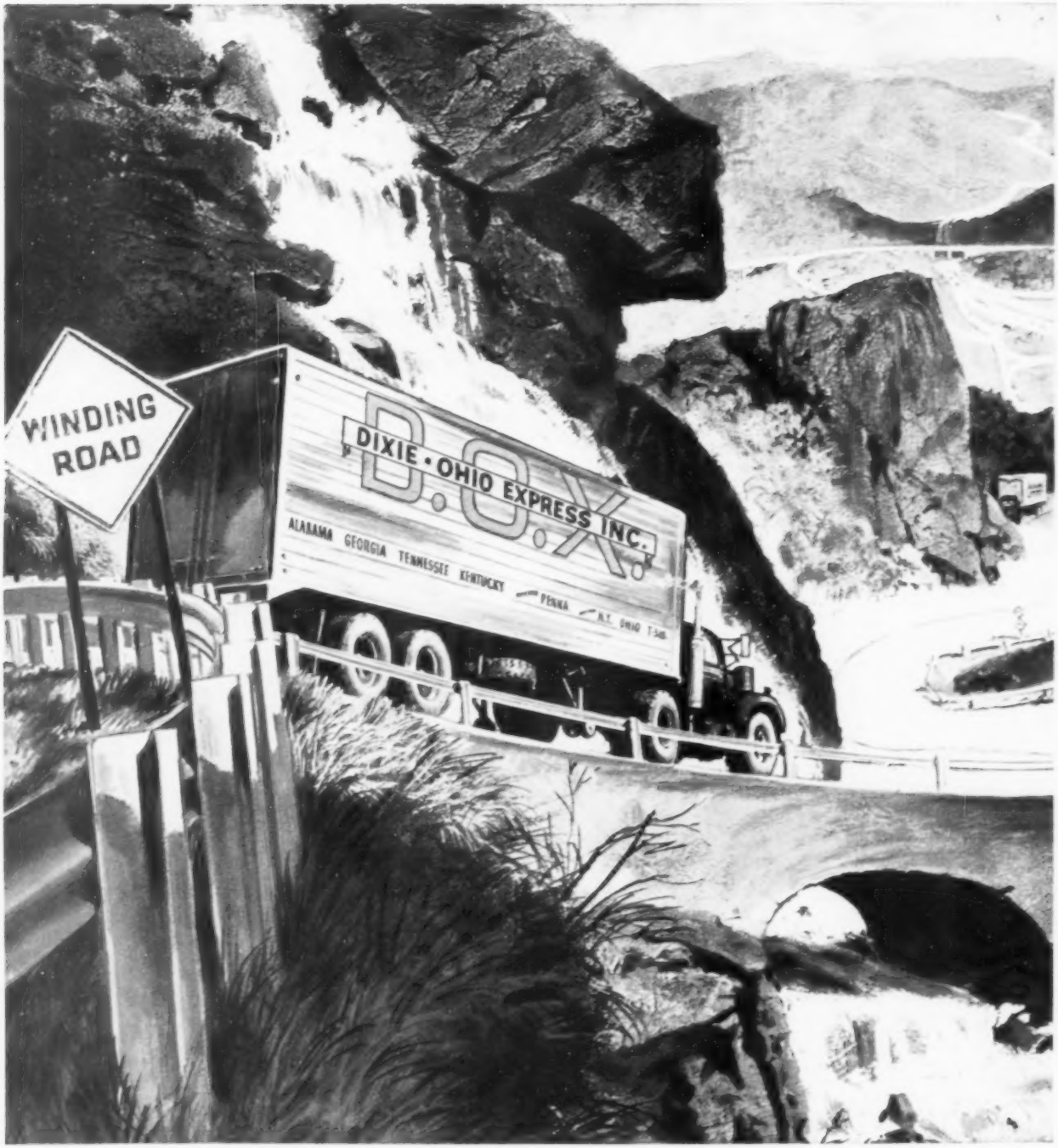
Firm _____

Address _____

City _____ Zone _____ State _____

A-6100

"On hot runs and tread-grinders,



Buy and Specify Tubeless or Tube-Type

GOODYEAR

MORE TONS ARE HAULED ON

we've tripled original mileage —

and haven't had a failure with HI-MILER CROSS-RIB in 3 million tire miles!"

How Dixie-Ohio Express vastly increased tread mileage, cut tire-cost-per-mile to new LOWS:

"When you combine long, hot runs with mountain grades averaging 5 tight turns a mile, mileage dwindles and tire costs mount.

"That was us," continues Dixie-Ohio President Clarence A. Kelley, "and we feared it would *always* be us.

"You see, we operate over 300 tractor units (mostly big diesels)—and almost 500 trailers—from Buffalo, New York—through Ohio, Kentucky and Tennessee—down to Georgia and Alabama.

"There aren't many tougher combinations of braking on downgrades and sharp curves—torque-force tire-loading on upgrades—and the heat of long, fast runs.

"But 3 million tire-miles ago, we tried the new Hi-Miler Cross-Rib. The difference was dollars in the bank!

"At our former top mileage on drive-wheels—our average Cross-Rib still has *plenty* of go-ahead traction left, *plenty* of sideslip resistance—and is good for many thousands of additional miles *before first recap!* We tripled our original tread mileage already and we're rolling up recap grand totals we hadn't believed possible.

"What's more—for all our long, hard runs—for all our sudden axle-loadings and braking on tight-turn mountain runs—for all our rugged detours—for all our 50 thousand pound gross loads—*not a Hi-Miler Cross-Rib has failed us in 3 million tire-miles!*

"This beats anything we've ever put on any run—and in a business where costs-per-mile can break you, it's no wonder we're now buying Cross-Rib tires by Goodyear as fast as we get the wheels for them!"

For more fact-records of Hi-Miler Cross-Rib, contact your Goodyear dealer or Goodyear, Truck Tire Dept., Akron 16, Ohio.

Watch "Goodyear Theater" on TV—every other Monday, 9:30 P.M., E.S.T.

HI-MILER CROSS-RIB
EXTRA RUBBER *plus* TRIPLE-TOUGH

60% THICKER NONSKID TREAD than conventional highway tires.

3-T NYLON CORD

TEMPERED LIKE STEEL! Like steel, tire cord must be tempered to be tough. Goodyear's exclusive 3-T process, involving Tension, Temperature and Time, triple-tempers cord to make it TRIPLE-TOUGH—to give you longest tire life, lowest cost-per-mile!

Hi-Miler—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

TRUCK TIRES

GOODYEAR TRUCK TIRES THAN ON ANY OTHER KIND

GOODYEAR TIRES

Look for this nearby Goodyear dealer sign for better tire values—better tire care.

Teamster's Fate in the Balance

YOU CAN GET A GOOD PICTURE of what's coming for labor during the next 11 months by looking at some of the early events of the year. This is a fateful year for labor. What happens in '58 is going to set the pace for a long time. Here are some of the key signs to watch:

Unemployment is rising—and it's going to hurt the unions. At the end of 1957, the jobless total was 3.4-million, the highest total in three years. And it will continue to climb at least through this March and April.

What happens then is anybody's guess. But right now it looks like a climb above five million and perhaps close to six. In trucking, the effects are already showing. Unemployment in the auto and steel industries hurt truckers—the steel-workers' union counts more than 125,000 out of work, another 200,000 on part-time jobs.

It will take some big changes in government spending—anticipated but not yet acted upon for home building—to shift the trend. Until that happens the jobless total will advance and, as industries continue the layoffs, the truck drivers will have less to haul.

Bargaining will be tougher all year long. Despite the contract wrapped-up by the Teamster union's new president, James R. Hoffa, easy settlements aren't in the wind. Hoffa, anxious to get an agreement that would prove him still a union power, settled for 96,000 Midwestern truck drivers on a contract calling for some 40 cents an hour over a three-year period.

Broken down, this adds up to a wage increase of 10 cents an hour the first year, and seven cents the next two. Other contract costs are due to added benefits in pensions and health and welfare funds. Hoffa got a break on bargaining this one before his troubles really hit.

He set what he hopes to be a pattern for other Central states truck-union operations while beating the gun on his arch-rival Walter Reuther, whose United Auto Workers are now talking demands for negotiations two months hence. Reuther will be lucky to just match the ten cents in cash when he deals with the auto makers.

Union organizers are going to hit a stone wall in 1958. Employers have been effectively resisting union membership drives for several years, and now their position will be even better. A slackening economy, combined with revelations of union racketeering, is hurting organizing campaigns. Even hitting the soft spots isn't easy. The Teamsters, who are doing better than most in a modest way, can expect setbacks. Federal decisions to limit the truck union's tactics, such as the NLRB ban on "hot cargo" contracts, are going to make the job of rounding up members even harder. Other devices for organizing—use of pickets and customer boycotts—are being limited too.

Legislative curbs and Congressional displeasure are a threat to labor this year, but probably no more than that. Surprisingly, there's only a slim chance that legislators will hit the unions with new labor laws. The subject will come in for heated talk in Congressional hearings, but when it comes to voting, nothing is likely to come of it all. There are a couple of reasons:

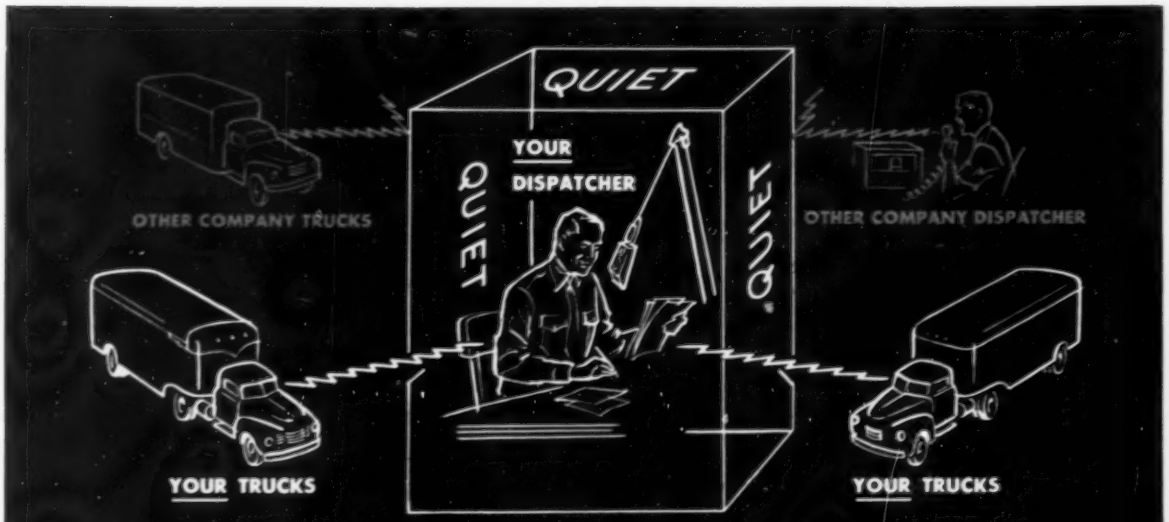
Congress is concentrating on foreign relations and isn't too interested in labor. Also, this is an election year and politicians aren't anxious to offend sizable groups of unionists before the balloting. Still, the racket investigations will go on through the year while legislative remedies are being debated. It will be embarrassing for unions but they can expect to come out from under fire by the end of the year.

The Teamsters still hope to ride out the storm that broke in 1957. It's a business-as-usual atmosphere at the union's headquarters, as much as the leaders can make it that way. Generally, the hope is to get things settled quickly once there's a president at the helm. And this could be something they'll wait for a long time. Right now, these are among the major items facing the Teamsters:

- Teamster president James Hoffa goes back on trial this month on perjury charges in New York City. He escaped conviction in an earlier trial by just one juror's vote. Now the government's bringing the case up again. This figures to be a long tangle for the recently confirmed president.

- The legal costs of defending Hoffa and other Teamsters are hurting. To offset some of the expenses to date, and those anticipated, the trucking union is taking up a collection among its officials. So far, Hoffa reports 100 officers have pledged $1000 each to a courtroom defense fund. The full goal, if all Teamster officials go for the plan, is $2-million. The hope is for a tenth of this.

- With an eye to the future, the Teamsters are talking quietly with the West Coast Longshore Union run by the truck union's former enemy, Harry Bridges. The talks are in private so far, but the idea is to coordinate warehouse bargaining on the West Coast waterfront. This is the way it works on the East Coast already.



Give your Dispatchers and Drivers

"ISOLATION-BOOTH" QUIET

with the new RCA 2-Way Radio "QUIET CHANNEL"

Now your drivers and dispatchers can listen to just the calls they want to hear—no need to receive messages from other companies on the same frequency! RCA "Quiet Channel" blocks out all unwanted co-channel messages as effectively as the Quiz Master's "isolation booth" blocks out all but the Quiz Master's voice on TV! Annoyance from skip interference from distant stations is also eliminated.

OPERATES AUTOMATICALLY—Speaker remains silent until another driver or dispatcher in the same system depresses his *press-to-talk* switch. This action results in the transmission of a constant low frequency tone (not heard through the loud-speaker) which combines with the noise quieting of the receiver to activate the loud-speaker. The loud-speaker will remain on until the transmission is completed, at which time it will be automatically turned off.

ENDS CONFUSION—Drivers and dispatchers hear only messages within their own system. Elimination of "channel chatter" enables operator to concentrate on his job. "Quiet Channel" reduces misunderstandings, improves morale, ends confusion.

INCREASES EFFICIENCY—Fewer errors mean fewer repeat messages, speedier service, more dispatched vehicles per hour, increased overall efficiency.

ALL FREQUENCY BANDS—RCA "Quiet Channel" is designed for use with all frequency bands. May be factory installed or added later to any RCA system.

Says Mr. **Robert Shenberger**, Terminal Manager, Mason & Dixon Lines, Inc.: "By eliminating interference we can hear better and speed a driver on his way. We're sure of fewer repeat messages, more dispatched vehicles per hour as a result of RCA 'Quiet Channel'."

RCA 2-Way Radio systems are the answer to highest reliability, built-in reserve power, better adaptability. RCA designs, manufactures, installs, maintains and services its own mobile radio equipment, provides advanced engineering that only the leader in radio and electronics can offer.

Mail coupon for more information

Tm(s) ®

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COMMUNICATIONS PRODUCTS

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Radio Corporation of America
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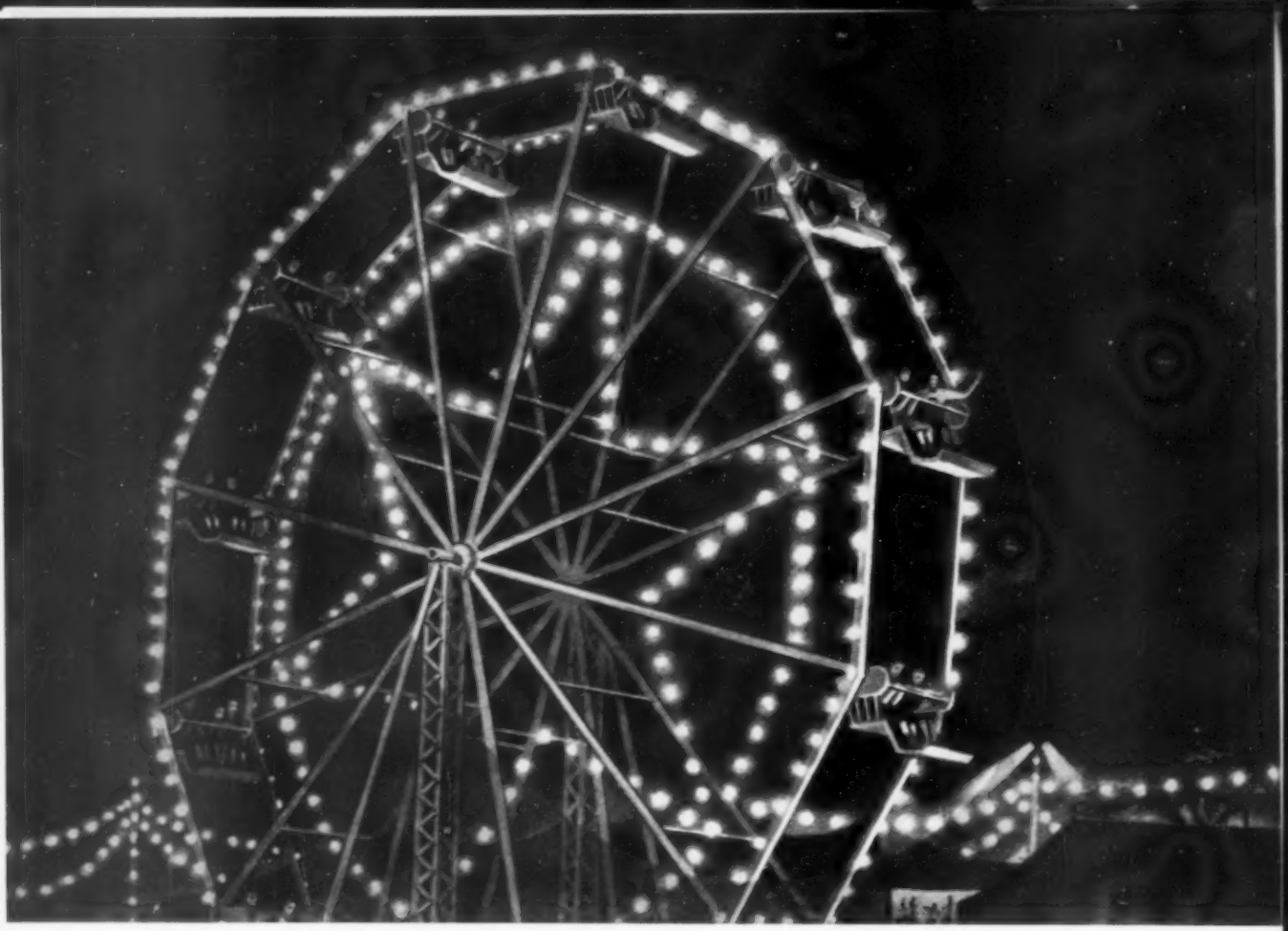
In Canada: RCA VICTOR Company Limited, Montreal

☐ Please send me additional information about RCA "Quiet Channel" equipment to block out un-wanted 2-Way Radio messages from other systems on same channel.

NAME _____ TITLE _____
(PLEASE PRINT)
COMPANY _____
ADDRESS _____
CITY _____ ZONE ____ COUNTY _____ STATE _____

☐ Have RCA Communications Specialist make a free RADIO SURVEY of my business.



FAMOUS AMERICAN WHEELS

The ferris wheel, a circle of twinkling lights, has spun against thousands of summer evenings, brightening the fair-time fun of a happy nation.

Another famous American wheel—the Budd heavy-duty steel wheel—rolls millions of miles a day, carrying the necessities and pleasures of a people at work and at play.

Budd's low cost, lightweight, life-of-the-vehicle steel wheels mean less down time and faster, safer, easier runs. Their built-in alignment reduces tire wear and eliminates adjustments.

NATIONWIDE SERVICE

AKRON—Motor Rim Manufacturers Co.
ALBANY—Wheels, Incorporated
ALBUQUERQUE—Wheels & Brakes, Inc.
ATLANTA—John A. Harris & Son, Inc.
BALTIMORE—Standard Wheel & Rim Co.
BIRMINGHAM—Wheel, Rim & Parts Co.
BOSTON—New England Wheel & Rim Co
BUFFALO—Frey, the Wheelman, Inc.
CHARLOTTE—Carolina Rim & Wheel Co.
CHICAGO—Stone Wheel, Inc.
CINCINNATI—Rim & Wheel Service, Inc.
CLEVELAND—Motor Rim Manufacturers Co.
COLUMBUS—Hayes Wheel & Spring Service
DALLAS—Southwest Wheel, Inc.
DAVENPORT—Stone Wheel & Rim Co.
DAYTON—Rim & Wheel Service, Inc.
DENVER—Quinn & McGill Motor Supply Co.
DES MOINES—Des Moines Wheel & Rim Co.
DETROIT—H. & H. Wheel Service, Inc.
EVANSVILLE—Auto Wheel & Rim Co., Inc.
FARGO—Wheel Service Company
FORT WAYNE—Wheel & Rim Sales Co.
GRAND RAPIDS—Rim & Wheel Service Co.
HARRISBURG—Standard Wheel & Rim Co.
HARTFORD—Connecticut Wheel & Rim Co.
HOUSTON—Southwest Wheel, Inc.
INDIANAPOLIS—Indiana Wheel & Rim Co.
JACKSONVILLE—Southeast Wheel & Rim Co.
KANSAS CITY—Borbein, Young & Co.
KNOXVILLE—John A. Harris & Son, Inc.
LANCASTER—Standard Wheel & Rim Co.
LOS ANGELES—Wheel Industries, Inc.
LOUISVILLE—Auto Wheel & Rim Service
LUBBOCK—Southwest Wheel, Inc.
MEMPHIS—Beller Wheel, Brake & Supply Co.
MILWAUKEE—Wisconsin Wheel & Rim Co.
MOLINE—Mutual Wheel Co.
NASHVILLE—Beller Wheel, Brake & Supply Co.
NEWARK—Automotive Safety Inc.
NEW HAVEN—Connecticut Wheel & Rim Co.
NEW ORLEANS—Southern Wheel & Rim Co.
NEW YORK—Wheels, Incorporated
OKLAHOMA CITY—Southwest Wheel, Inc.
OMAHA—Morgan Wheel & Equipment Co., Inc.
OMAHA—Omaha Rim & Wheel Co.
PEORIA—Peoria Wheel & Rim Co.
PHILADELPHIA—Kay Wheel Sales Co.
PHILADELPHIA—Thomas Wheel & Rim Co., Inc.

Their permanently-attached rims do away with "rim creep." And they're so easily installed: just "button down" the ball-faced cap nuts.

For all these reasons, Budd heavy-duty steel wheels have become the "standard" for fleet owners countrywide.

Thinking About Tubeless? Budd has a complete line of road-tested economical tubeless wheels, interchangeable in all cases with conventional equipment.

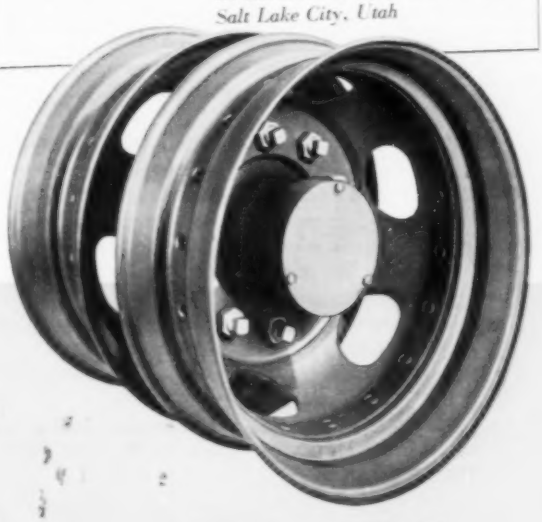
The Budd Company, Detroit 15.

A Customer Reports:

"One of our accounts, Interstate Motor Lines, Inc., standardizing on Budd tubeless tire wheels cut tire costs from 1½ mills per mile to 8/10 mill per mile. Road delays due to flats have been cut 60%.

"They also report a weight saving per trailer of 280 pounds."

Henderson Wheel & Rim Service
Salt Lake City, Utah



PITTSBURGH—Wheel & Rim Service
PORTLAND—Six Robblees', Inc.
PROVIDENCE—New England Wheel & Rim Co.
RALEIGH—Carolina Rim & Wheel Co.
RICHMOND—Dixie Wheel Co., Inc.
ROCHESTER—Frey, the Wheelman, Inc.
SALT LAKE CITY—Henderson Rim & Wheel Service
SAN ANTONIO—Southwest Wheel, Inc.
SAN FRANCISCO—Wheel Industries, Inc.
SEATTLE—Six Robblees', Inc.
SOUTH BEND—Wheel & Rim Sales Co.
SPOKANE—Bearing & Rim Supply Co.
SPRINGFIELD, ILL.—Illinois Wheel & Brake Co.
SPRINGFIELD, MO.—Borbein, Young & Co.
ST. LOUIS—Borbein, Young & Co.
ST. PAUL—Wheel Service Co.
SYRACUSE—Wheels, Incorporated
TACOMA—Six Robblees', Inc.
TOLEDO—Wheel & Rim Sales Co.
WICHITA—Borbein, Young & Co.
WINSTON-SALEM—United-Automotive Service

EXPORT

CLEVELAND, OHIO—C. O. Brandes, Inc.
4900 Euclid Avenue

CANADA

CALGARY—Mutual Supplies, Ltd.
EDMONTON—Alberta Wheel Distributors, Ltd.
MONTREAL—Auto Wheels & Supplies, Ltd.
TORONTO—Wheel & Rim Co. of Canada, Ltd.
VANCOUVER—Wheels & Equipment, Ltd.
WINNIPEG—Ft. Garry Tire & Auto Supplies, Ltd.

Budd

Picking Drivers—Key To Safety

PROPER SELECTION OF DRIVERS is the hook on which you should hang your entire accident-reduction program. And driver selection is an integral part of any comprehensive medical program. This is one of the ways transportation medicine can help the fleet owner maintain an efficient and economical organization.

Even the best safety program is doomed if drivers are poorly chosen. Haphazard selection is a cause; high accident rates are the results.

The thorough medical examination of prospective drivers must include:

- A determination of the man's psychological suitability for the job
- A detailed medical history
- A complete physical examination.

Here are the points to cover in picking the man who physically fits the job, points to help you spot risks before it's too late:

Psychological testing and interviewing should be performed by a trained psychologist. Where this is not feasible, an experienced personnel officer should interview the candidate to determine if he will be a good employee.

As a general rule, stable men who are married, are home owners, have a bank account and are not in financial difficulty, keep jobs for longer periods. Age is an important factor, the best range being between 25 and 35 years old.

What a man has done in the past (and his attitude towards it) is a good indication of what he will do in the future. Check his experience carefully. Individuals with a history of repeated accidents are likely to have more.

Formal education is thought to have little bearing on an applicant's ability, but most firms maintain a minimum intelligence requirement. The American Transit Association has IQ tests which are highly recommended.

Proper attitudes are essential. Dissatisfied, timid, naturally troublesome or temperamentally unstable men, do not make good drivers.

The psychological tests which should be performed will be discussed at a later date.

The basic qualities, listed by the American Transit Assn. can be a guide: moral character, mental ability, health, motivation, stability, maturity, sociability, manner, and appearance.

Following the psychological tests, certain psychophysical tests should be performed such as depth perception, lateral vision, glare resistance, color vision, and hearing.

A detailed medical history should be taken by the examining physician, containing questions on military records (especially any disability) any injuries or illnesses, and the kind and amount of drugs, medicine and alcohol ingested.

In addition, the physician should ask questions about the various systems of the body. The details of the history require a great deal of thought and experience in an effort to be inclusive and shed light on possible deficiencies.

The physical examination should be performed with great care. In addition to vital statistics, it should include an opinion concerning the appearance, intelligence and temperament of the candidate. The physician should note height and weight, whether the applicant wears glasses, his musculature, posture, nutrition and skin.

He should make a detailed examination starting at the top and working down: a complete test of vision, ears, teeth, nose, neck, chest, lungs, heart, abdomen, genitals, back, extremities. The examiner should perform a neurological examination and give an emotional and psychiatric evaluation of the candidate.

Also, urine examinations, chest x-rays, blood tests and an electrocardiogram should be performed. The results of the examination should be classified according to a profile system, similar to that established by the Air Force during World War II. This profile method of classification will be described in a later issue.

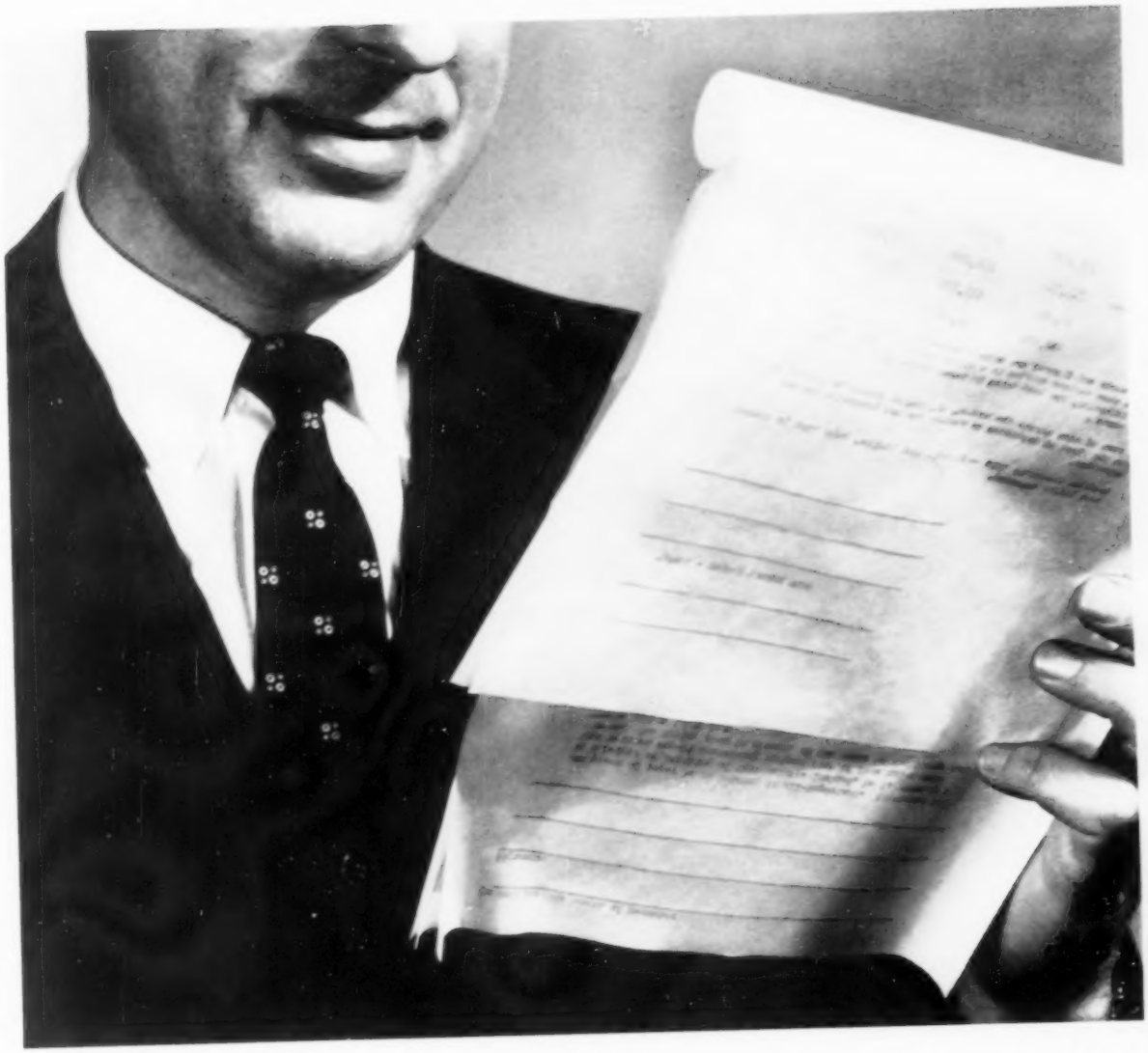
■

Further outbreaks of Asian flu can be expected during February and March, Surgeon General Leroy E. Burney warns. Although just how severe the attacks will be, cannot be predicted yet, Japan and some areas of the United States have already experienced a return of the virus.

Encourage employees to have Asian flu inoculations, if they have not already done so. Some companies are making a vaccine combining Asian flu and the original flu vaccines.

Relief for penicillin allergy. For an estimated 5% of the population allergic to penicillin, there's a new drug called Neutrapan. It's said to counteract allergic symptoms, ranging from rashes and swelling to life-threatening shock.

Harold Brandaleone, M.D., FLEET OWNER's medical consultant is medical director of the United Parcel Service, New York.



Plymouths on the payroll make comptrollers smile!

The longer a Plymouth fleet operates, the happier the expression on the man who minds the money. For new '58 Plymouths, by keeping expenses under budget, can put a company even further in the black.

For instance: Plymouth's new Fuel-Saver Choke is designed to save fleets hundreds of dollars annually. Plymouth's Total-Contact Brakes shave relining and maintenance costs. Plymouth's brawny chassis and body also reward you, especially in the long run where fleet costs become critical.

A Plymouth fleet can even spur your sales! Years-ahead styling whets morale—makes salesmen prouder, more productive. Plymouth's Torsion-Aire Ride (*no* extra cost) takes the punishment out of long hauls, keeping your men in peak-selling form.

When you consider Plymouth's modest price (more competitive than ever!) and solid resale value, the choice of a Plymouth fleet is almost inevitable. For smiles all around—but especially on your comptroller—go Plymouth for '58. See your Plymouth dealer!

Costs go down . . . sales go up . . . when you go **Plymouth**

Offering a full range of Mack engines—gasoline, diesel, turbocharged diesel—

Two great new MACKS

New look in a proved performer—
Mack Model H

New Mack Model N—with power to earn

join the Bulldog fleet

And every model has full tilt-cab accessibility

Now! Mack takes the wraps off the widest range of heavy-duty, cab-over-engine trucks and tractors in the nation today.

Now! There are Mack trucks and tractors for every important C.O.E. job — for city or suburban work — for highway operation in any state, whether restrictions are governed by bridge formulas or not.

Now — you can have any Mack gasoline or diesel engine for your C.O.E. operations. You can, for the first time, have up to 205 diesel h.p. in a low-silhouette C.O.E. unit. You can have the Mack transmissions (5 to 20 speeds), brakes, frames, cabs and suspensions that best meet your needs — including six-wheel models with the famous Mack Balanced Bogie.

Look for these compact, new cost-busters on the highways — on city streets — and in Mack branch and distributor showrooms. There's no matching Mack! Mack Trucks, Inc., Plainfield, New Jersey. In Canada: Mack Trucks of Canada, Ltd.

IT'S PART OF THE LANGUAGE
BUILT LIKE A

Mack

MORE INFORMATIVE, MORE HELPFUL THAN EVER!

New 1958 TUNG-SOL Lamp & Flasher Servicing Guide Spurs Sales

Here's the industry's only complete headlamp, miniature lamp and flasher servicing guide. It contains specifications and installation instructions for every domestic car and truck, and leading foreign cars, from 1940 thru 1958!

Step-indexed for rapid reference, the new edition features other timely, informative sections, too: how to install and aim new dual headlamps . . . the profit in a 5,000 mile aiming check campaign . . . how to build a profitable TBA program . . . service tips—all geared to help you get your share of the growing lighting service market.

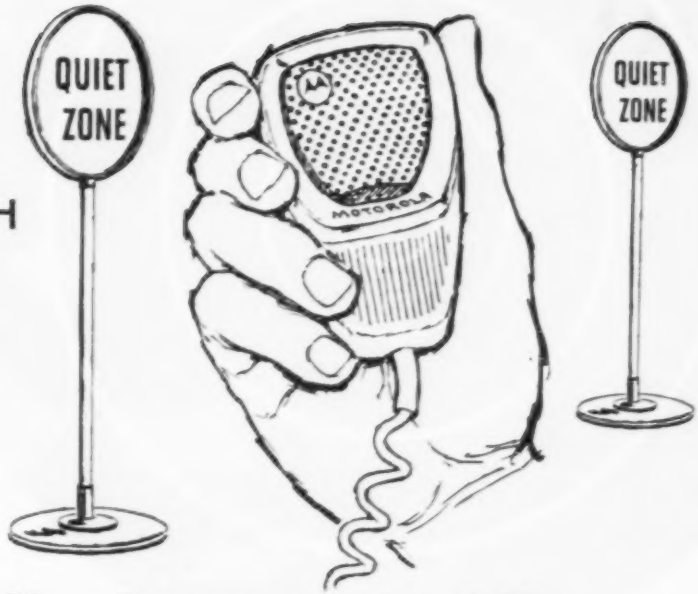
If you haven't received your free copy of the 1958 Tung-Sol Lamp & Flasher Servicing Guide by mail, see your jobber. He'll rush it to you promptly.

LIGHTING SERVICE IS MORE PROFITABLE WITH . . .

LAMP DIVISION **TUNG-SOL ELECTRIC INC.** *NEWARK 4, N. J.*

Sales Offices: Atlanta, Ga.; Columbus, Ohio; Culver City, Calif.; Dallas, Texas; Denver, Colo.; Detroit, Mich.; Irvington, N. J.; Melrose Park, Ill.; Newark, N. J.; Philadelphia, Pa.; Seattle, Wash. Canada: Montreal, P. Q.

NEW
MOTOROLA
DUAL-SQUELCH
PRIVATE-LINE
2-WAY RADIO...



silences all channel traffic except your own messages

PRIVATE-LINE radiophone is now available in T-POWER (shown above), which features a completely transistorized power supply, as well as TWIN-V radio with 6/12 volt operation.

Get the complete facts about this startling new type of 2-way radio. Write today for these 2 new folders on PRIVATE-LINE radiophone.

Now, with the new Dual-Squelch PRIVATE-LINE radio, you get all the benefits of improved PRIVATE-LINE operation . . . *plus* easy integration for mixed fleets and monitor-before-transmit.

Because PRIVATE-LINE radio is quiet except when receiving a call from another radio in your own system, you eliminate all the "channel chatter." It's much like having the frequency all to yourself. You benefit by reducing the number of missed or misunderstood messages . . . operator fatigue is reduced . . . overall efficiency is increased.

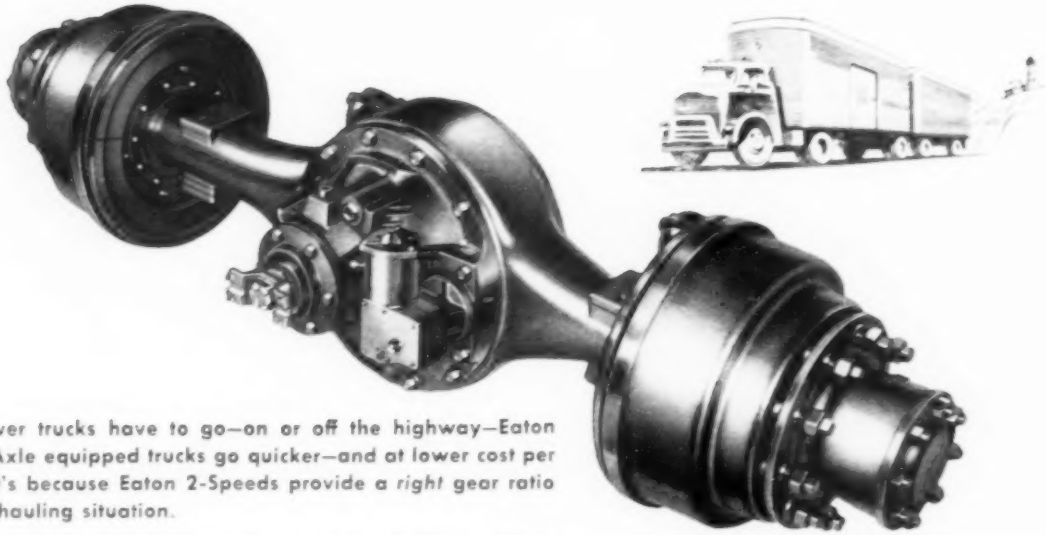
Dual-Squelch PRIVATE-LINE radio gives you these basic features . . . and more. Now you can make a gradual changeover to PRIVATE-LINE operation. During the transition period, your messages can be received by both Motorola conventional and PRIVATE-LINE radios. No longer is it necessary to make the complete changeover to PRIVATE-LINE operation at the same time. And with the new Dual-Squelch operation, you can have manual selection or optional automatic monitoring of the channel before transmitting.

Before you select your 2-way radio, you'll want to investigate Motorola Dual-Squelch PRIVATE-LINE radio.

MOTOROLA PRIVATE-LINE RADIOPHONE

MOTOROLA Communications & Electronics, Inc., A Subsidiary of Motorola, Inc., 4501 Augusta Boulevard, Chicago 51, Illinois

TRUCKS GO when they are equipped with EATON 2-SPEED AXLES



Wherever trucks have to go—on or off the highway—Eaton 2-Speed Axle equipped trucks go quicker—and at lower cost per mile. That's because Eaton 2-Speeds provide a *right* gear ratio for every hauling situation.

To enable truckers to "make time" on the open highway, Eaton 2-Speed Axles provide a HIGH-HIGH ratio—trucks GO at top legal speeds. When POWER is needed on steep grades or to pull out of tough off-the-highway spots under full load, drivers select the LOW-LOW ratio—and GO! This wider choice of gear ratios means reduced stress and wear on engines and other vital truck parts. It means that Eaton 2-Speed Axle trucks keep GOing for many extra thousands of trouble-free miles—they cost less to operate and maintain, and are worth more at trade-in time.

More than Two Million Eaton Axles in Trucks Today. For complete information, see your truck dealer.

EATON AXLE DIVISION MANUFACTURING COMPANY CLEVELAND, OHIO

PRODUCTS: Engine Valves • Tappets • Hydraulic Valve Lifters • Valve Seat Inserts • Jet Engine Parts • Hydraulic Pumps Motor Truck Axles • Permanent Mold Gray Iron Castings • Forgings • Heater-Defroster Units • Automotive Air Conditioning Fastening Devices • Cold Drawn Steel • Stampings • Gears • Leaf and Coil Springs • Dynamatic Drives, Brakes, Dynamometers

LETTERS TO THE EDITOR

Bonus Plan

Dear Sir:

Would it be possible for you to furnish us information as to the bonus plan that has been used by wholesale grocers with reference to truck drivers?

HAROLD J. SMITH, JR.
U. S. WHOLESALE GROCERS ASSN., INC.
WASHINGTON, D. C.

Dear Sir:

We are a seven-store department chain, operating our own fleet for delivery of furniture and bulk merchandise to customers' homes.

We are interested in setting up a wage incentive plan for our drivers and helpers.

If you have any information on such plans now operating in situations similar to our own, we would appreciate such information.

V. A. KATZ
GILCHRIST COMPANY
BOSTON, MASS.

■ **We are sending two sets of tear sheets from past issues which will be helpful. They are:**

Dec. '53 p 44—"Gimmicks, Bonuses Bring Safety Award to Laundry."

Sept. '56 p 130—"Drivers' Contest Hikes Gas Mileage 10%."

Fleet of Pickups

Dear Sir:

Most of our units are pickups (½, ¾ and 1 ton). For the most part, we are not interested in the big rigs that most magazines write about. If you feel your magazine has some value to us, I'll be glad to hear from you.

JAMES C. HICKEY
W. L. HICKEY SONS, INC.
SAN BRUNO, CALIF.

■ **We feel strongly that you'll find a great deal in Fleet Owner that will be of value in operating a fleet of small pickup trucks. For example, we're sending you a copy of our recent survey on washing and painting. In it**

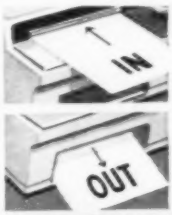
Continued on page 43

The "Thermo-Fax" Copying Machine

. . . gives you fast copies of weight certificates, bills of lading, delivery receipts; you save time, speed service

It's like having another typist in your office . . . but it doesn't cost as much. The All-Electric "Thermo-Fax" Copying Machine is the simplest way to copy records, bills, receipts . . . any forms you now retype or duplicate. It is the only completely *dry* process copying machine . . . no chemicals or negatives needed. You get copies in 4 seconds for as little as 5¢ each. You save more money and time than you can with any other copying method. Why not find out how clean, simple All-Electric copying can help you speed service with faster paperwork handling. Send coupon below for details.

MINNESOTA MINING AND MANUFACTURING COMPANY
where RESEARCH is the key to tomorrow



PRODUCT OF 3M COMPANY RESEARCH
Thermo-Fax
COPYING PRODUCTS

IN 4 SECONDS

Minnesota Mining & Manufacturing Company
Dept. QL-28, St. Paul 6, Minnesota

Send full details on the dry process THERMO-FAX "Secretary" Copying Machine and my free copy of your new book, *Better Business Communications.*

Name _____

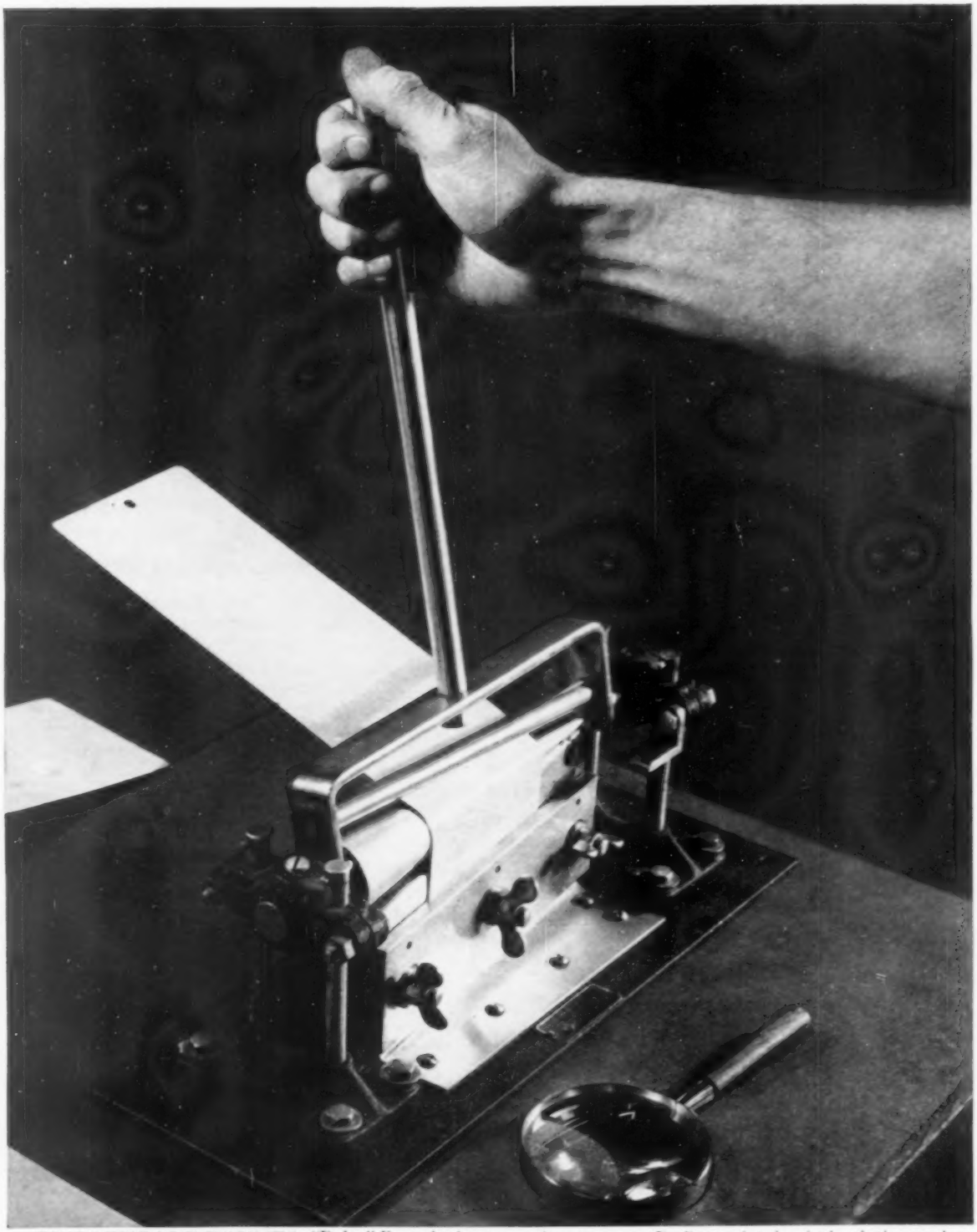
Company _____

Address _____

City _____ Zone _____ State _____

"Thermo-Fax" and "Secretary" are 3M Company trademarks

Bends without cracking—big reason



TOUGH TEST OF FLEXIBILITY—"Dulux" Enamel takes tremendous stress as a Du Pont paint chemist bends the panel in a conical mandrel. Absence of cracking, even at tapered end of cone, shows the outstanding flexibility of "Dulux".

why Du Pont DULUX Enamel is specified by leading fleet operators

Vibration and flexing of body panels while vehicles are in operation are a constant threat to truck and bus finishes. The continuous bending and twisting can easily develop fine cracks clear through to the metal and put units back in the paint shop before their time.

That's why Du Pont uses special *flexible* resins in "Dulux" Enamel and puts it to this severe test. On the conical mandrel (at left) a metal panel finished with "Dulux" shows no cracking even after it's bent into a sharp "L"—worse punishment than your fleet finishes are ever likely to encounter.

AND THIS IS ONLY ONE OF THE TESTS that make "Dulux" the *standard* of durability. Other tests insure resistance to harsh sunlight and dew, to salt air, to chipping under hard knocks, and to ice and heat. Still others measure fast drying, high gloss and all the other features that make "Dulux" popular in the paint shop.

TRUE ECONOMY—When you put Du Pont "Dulux" on your fleet, you take advantage of the continuing experience of the world's greatest paint laboratory. That's why your paint shop will find "Dulux" easy-working and economical . . . why it stays out of the shop and on the road longer.

When you choose a finish to carry your company colors, make sure it will show them at their best. Specify Du Pont "Dulux" Enamel.

IT PAYS TO USE THE COMPLETE "DULUX" SYSTEM

NEW PREP-SOL + NEW PREPAR-AKOTE + DULUX REDUCER + DULUX COLOR

Du Pont "Dulux" Enamel

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

BORDEN'S FARM PRODUCTS TRUCKS make a good impression with sparkling "Dulux" Enamel. And its fresh look "keeps" in any climate—even in grueling day-to-day deliveries in traffic fumes, rain, sunshine and snow.

THE ALBUQUERQUE BUS COMPANY finds "Dulux"-bright buses help sell bus transportation . . . especially likes the way "Dulux" stands up under the blazing New Mexico sun. "Dulux" snaps back bright and beautiful at every washdown.

SITES SILVER WHEEL FREIGHTLINES depends on "Dulux" to keep their fast-growing fleet looking its best on the long haul through the Cascade Mountains and the ice and winds of the Columbia River Gorge.

Maintenance managers of many large fleets find that Blue Streak Heavy-Duty Fleet Ignition measurably reduces emergency road calls and "down time" caused by ignition failures. See your Blue Streak jobber for details, or write Standard Motor Products, Inc., Long Island City 1, N. Y.

BLUE STREAK PIONEER IN HEAVY-DUTY IGNITION FOR FLEETS

Continued from page 39

you'll find the vocational breakdown of all the fleets participating in the survey. We do this on all surveys so we can cover all types of fleets.

Reading from the contents page of December 1957 issue of Fleet Owner, we think you'd find the following stories of interest: A safety training story, tips on stretching hose life, a two-page article on adjustable wrenches, a story on ways to save money on income tax, and a story giving the prices of 1958 model fleet cars.

And the standard departments in the magazine (Labor Trends, Fleet Trends, Useful Shop Kinks, New Products, and Your Personal Business) would be of help, too.

Correction

Dear Sir:

Your December 1957 issue, on page 90, contains a reference to an Arizona meeting concerning reciprocity. The group which met in Arizona on October 17, 1957 was the Western Interstate Committee on Highway Policy Problems, a special group functioning under the Western Region, Council of State Governments.

Your article contains this statement, "Spokesmen for sister states, many of whom said their revenues have suffered, urged Arizona to join in reciprocal licensing and proration of truck taxes." This statement is erroneous.

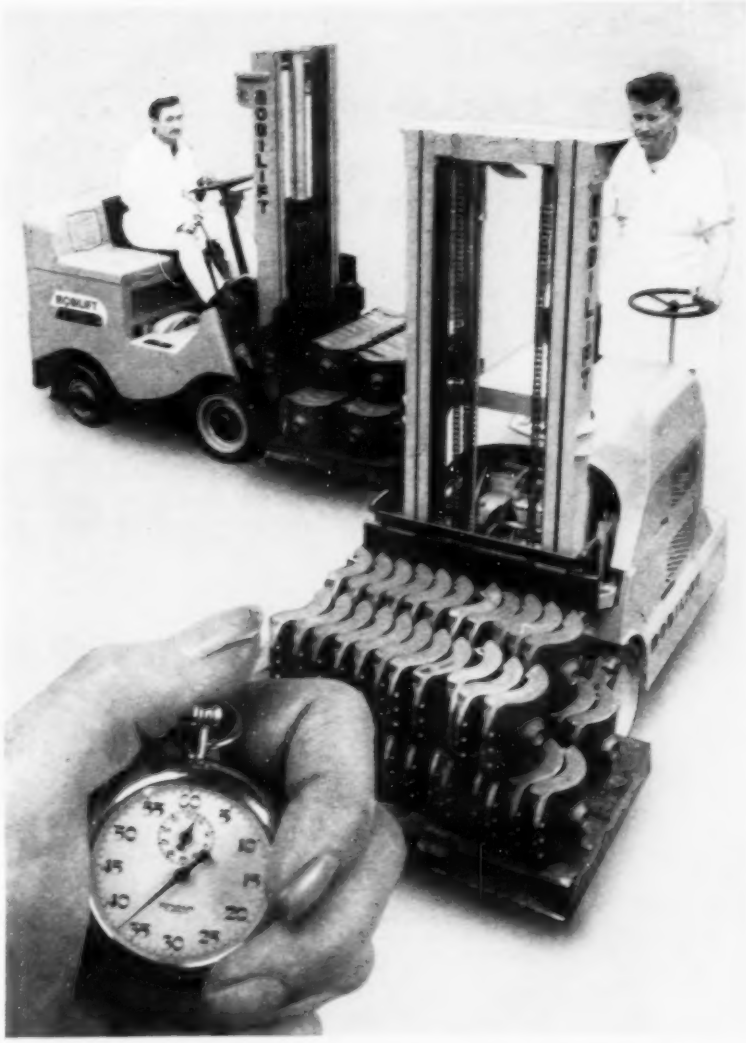
There are only nine states in the Western proration compact. Seven of those states were represented at the Arizona meeting. Five of the seven indicate that they have had increased revenues due to proration.

One state, Colorado, says that its revenues have increased, but this is probably due to normal appreciation, and New Mexico indicates there has been no loss. In the light of these statements, it would appear that the line quoted from your article, particularly, "many of whom . . . have suffered" is extremely inaccurate.

JOHN L. SPRINGER
WESTERN HIGHWAY INSTITUTE
SAN FRANCISCO, CALIF.

■ **Please accept our apologies for the error. It was an error made in all**

Continued on page 47



COMPARE *MOBILIFT* with any other lift truck!

BUY ON PROOF! Make an on-the-job comparison . . . it costs you nothing to make sure you get more work done in less time and at lower costs from the lift truck you choose by this method. . . .

WRITE TODAY FOR COMPARISON CHART

LAMSON MOBILIFT CORP

365 S. E. Main Street
Portland 14, Oregon

CLIP THIS COUPON

Please send me the following:

☐ All Model Brochure. ☐ Sit-down Model Brochure.
☐ Stand-up Model Brochure. ☐ Comparison Chart.

Name _____
Address _____
City _____ Zone ____ State _____

This new "Jimmy" Diesel doesn't care what's tied to its tail!

New GM "71E" Diesel—available for any make truck or bus—can cut gasoline engine operating costs in half!

This newest "Jimmy" Diesel not only doesn't care what's tied to its tail—it's engineered to outperform any other engine on the road.

First, it utilizes the weight-saving, space-saving two-cycle design which General Motors introduced 20 years ago to let you haul more pay load and less dead weight.

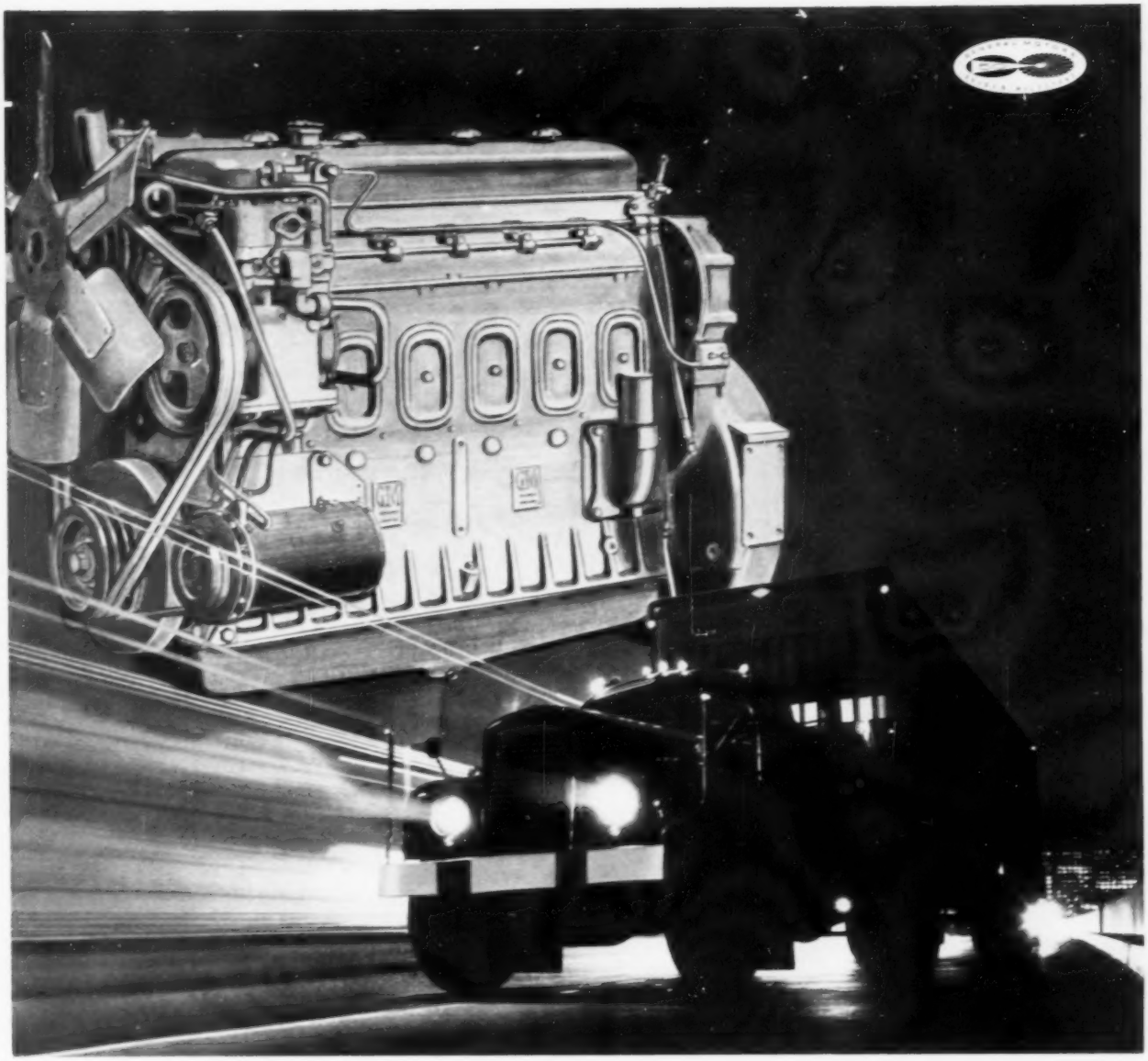
Lower fuel and maintenance costs

Next, this new "71E" engine has *four* exhaust valves per cylinder and a 38% increase in air-inlet area for the freest "breathing" known. This, plus new injectors, assures *better combustion—maximum power from minimum fuel—smoke-free exhaust.*

Highway haulers who have been testing the "71E" engine report it gives them lower fuel and maintenance costs than any other Diesel. Users who have switched over from gasoline engines in their trucks *have cut operating costs as much as 50%!*

See your GM Diesel distributor about repowering your present equipment. When you're in the market for new trucks, ask for this great new GM "71E"* engine. And if the truck you choose isn't immediately available with a "Jimmy," turn your truck over to the GM Diesel distributor for a "71E" installation. *You'll be money ahead!*

GM
GENERAL MOTORS
DETROIT DIESEL POWER



**Truck and bus engines: "4-71E"—140 h.p.; "6-71E"—210 h.p. New Turbopower models utilize the energy of exhaust gases to deliver even higher power: "4-71T"—171 h.p.; "6-71T"—236 h.p.*

Write for illustrated brochure, *"A New Line of GM Diesel Engines For Trucks."*

Now—more than ever—*it pays to standardize on GM Diesels*—available in 1485 applications of power equipment built by more than 175 manufacturers. Parts and Service *Worldwide*.

What's the cost of a Diesel?

The initial cost of a Diesel is quite understandably more than a gasoline engine because its higher compression ratio requires much greater precision and ruggedness. But the Diesel more than pays for itself in time savings, fuel economy and reduced maintenance and longer life. Due to simpler 2-cycle design and lower-cost interchangeable parts, a GM Diesel gives you lowest costs over the entire life of the engine. Try one—see for yourself!

Detroit Diesel Engine Division of General Motors, Detroit 28, Michigan

Regional Offices: New York, Atlanta, Detroit, Chicago, Dallas, San Francisco

In Canada: GENERAL MOTORS DIESEL LIMITED, London, Ontario • *Single Engines*—30 to 300 H.P. • *Multiple Units*—Up to 893 H.P.

ENGINEER'S FIELD REPORT

PRODUCT RPM MULTI-SERVICE GEAR LUBRICANT

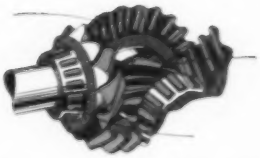
FIRM YAKIMA CEMENT PRODUCTS CO. Yakima, Washington

No scoring or pitting of differential gears in 6 years

In Six Years of using RPM Multi-Service Gear Lubricant, not one differential in the entire 20-truck fleet of Yakima Cement Products Co. has shown any scoring or pitting of gear teeth. Despite grueling service delivering ready-mix concrete and other building materials to off-highway construction sites, lubricant has never failed to do its job. Firm's six-wheel-drive trucks supply sand, gravel, ready-mix concrete, and fabricated concrete products to projects within 100 miles of Yakima, Washington.

Ready-Mix Truck like rest of firm's vehicles, is rebuilt Army surplus 2½-3 ton International. "In the fleet of 21 six-wheel-drive trucks, we have never had a transmission or differential failure due to lubrication, despite our severe operating conditions since we started using RPM Multi-Service Gear Lubricant," says firm's chief mechanic, Art Weber. This lubricant is also used in all mixer drive gear boxes.

Why RPM Multi-Service Gear Lubricant prevents wear



- Special compound forms protective lubricating coating on gears by chemical reaction with metal . . . resists rubbing action of hypoid gear teeth.
- Withstands extreme temperatures and pressures . . . highly oxidation resistant . . . keeps bearings and gears cool.
- Inhibitors resist rusting, stop foaming . . . lubricates integral bearings . . . will not separate.

For More Information or field help with any fuel or lubrication problem, contact representative of any company listed or write direct.

LUBRICATING OILS RPM DELO

TRADEMARK "RPM DELO" AND DESIGN REG. U. S. PAT. OFF.

STANDARD OIL COMPANY OF CALIFORNIA, San Francisco 20
THE CALIFORNIA OIL COMPANY, Perth Amboy, New Jersey

STANDARD OIL COMPANY OF TEXAS, El Paso
THE CALIFORNIA COMPANY, Denver 1, Colorado

LETTERS TO THE EDITOR

Continued from page 43

honesty, and we're sorry if any false impressions have been created. Certainly, though inaccurate, the statement was not intended to mean that these states claimed their revenues suffered as a result of their *own* adoption of reciprocal licensing and proration. Rather, we intended it to mean that they said their own revenues were suffering because *Arizona* had not adopted such measures.

Tire Forms

Dear Sir:

We have noted with interest an article in the November issue of FLEET OWNER regarding tire records.

On page 66 of this issue you show a form which is indicated as FLEET OWNER Form No. 12. Would you please advise us if it is possible for us to obtain these forms from you already printed. If so, would you please advise us as to what quantities must be purchased and their cost.

GEORGE W. MILLER
THE BORDEN COMPANY
PHOENIX, ARIZONA

Dear Sir:

Please send us a reprint of the article on tires and tire reports published in your November issue of FLEET OWNER. Also, we would like to get some copies of the Tire Form No. 11 and Tire Form No. 14.

H. B SCHULTZ
INDIANA TRUCKLEASING CORP.
FT. WAYNE, INDIANA

■ **We can reprint the forms on a somewhat enlarged scale (8½" x 11"). The paper, a heavy grade, comes in a choice of Mandarin orange, yellow, ivory, white, greenish-white, pink, salmon, cherry, green, buff or bright yellow. The cost of reprinting Form No. 11 would be $21 for the first 1000, and $15 for each additional 1000. Reprints of Form No. 14, if printed on only one side, would cost the same. If printed on both sides, this form would cost $31.50 for the first 1000, and $21 for each addtional 1000. The cost of reprinting form No. 12 would be $31.50 for the first 1000, $21 each additional 1000.**

If you are interested please let us know in what quantity and color.

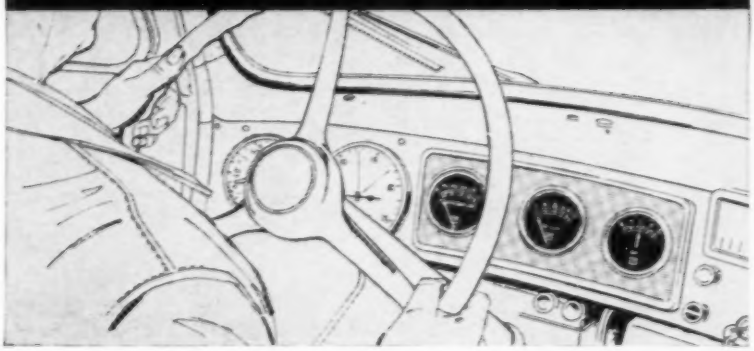
State Projects Get $3-Billion

Federal Highway Administrator Tallamy disclosed that as of October 30, states had programed a total of $3,222,608,000 for work on the Interstate System. This figure includes only those actions taken since the passage of the 1956 Federal-Aid Highway Act. Tallamy addded that $2,718,491,000 of the total program is in federal funds. Project mileage is 4,181.8 miles.

Programing, according to the Bureau of Public Roads, is the first step in Federal-aid projects. It pertains to funds committed for specific projects defining a proposed program.

As of October 30, construction contracts of $1,336,235,000 were authorized for 2,576 miles of projects; preliminary engineering and right-of-way acquisitions were authorized in the amount of $715,565,000.

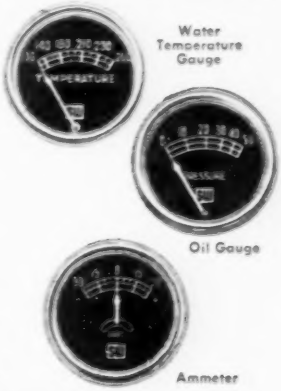
ACCURACY HERE...
can save costly engine damage!
INSTALL STEWART-WARNER
Universal Mounting Gauges



for trucks, busses, cars!

- Rugged vibration-proof mechanism!
- Dust-tight, water-proof, corrosion-resistant construction!
- Chrome bezel rolled over rubber gasket!
- Silicone damped pointers—no bounce or flutter!
- Ample safety factor—will not take a "set" when overloaded!

There is a famous-quality Stewart-Warner instrument or gauge for every automotive need—to give dependable warning indications *before* oil drains away, *before* coolant boils off or fuel runs out . . . *before* countless other engine troubles cause costly damage.



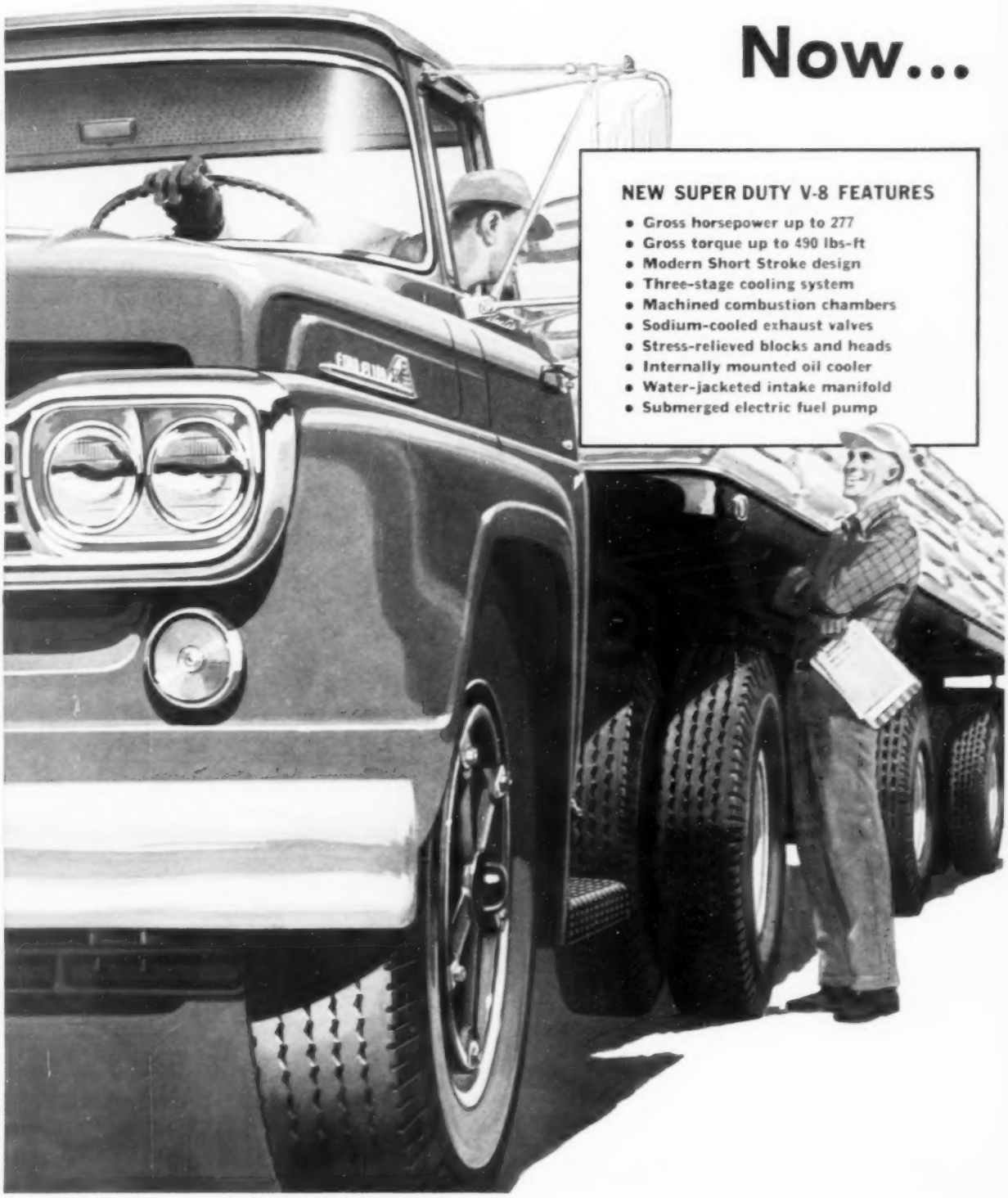
See your dealer for complete details, or write:

STEWART-WARNER
Instrument Division
Dept. WW-28, 1840 Diversey Parkway, Chicago 14, Illinois

STEWART SW WARNER

Big new FORD

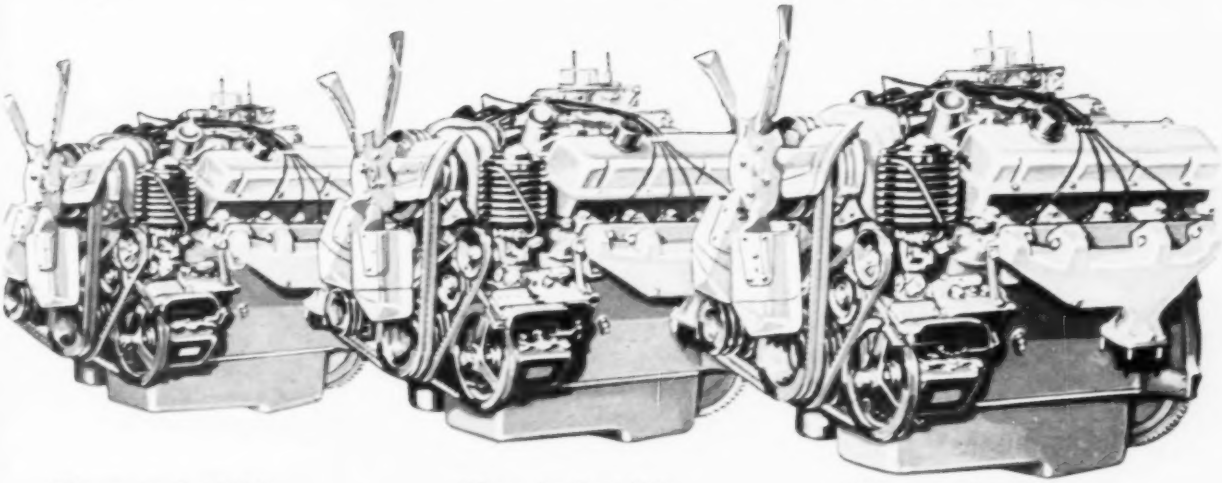
Now...



NEW SUPER DUTY V-8 FEATURES

- Gross horsepower up to 277
- Gross torque up to 490 lbs-ft
- Modern Short Stroke design
- Three-stage cooling system
- Machined combustion chambers
- Sodium-cooled exhaust valves
- Stress-relieved blocks and heads
- Internally mounted oil cooler
- Water-jacketed intake manifold
- Submerged electric fuel pump

super duty V-8's up to 534 cu. inches!



401-cu. in. Ford V-8
Maximum horsepower—226.
Torque: 350 lbs-ft @ 1800 to 2300 rpm.

477-cu. in. Ford V-8
Maximum horsepower—260.
Torque: 430 lbs-ft @ 1800 to 2300 rpm.

534-cu. in. Ford V-8
Maximum horsepower—277.
Torque: 490 lbs-ft @ 1800 to 2300 rpm.

10 BIG NEW EXTRA-HEAVY TRUCK SERIES

GVW's up to 51,000 lb. For '58, ten new basic series are added to Ford's already extensive Heavy and Extra Heavy Duty line. Four new Tilt Cabs, four new Conventionals, and two new Tandem models offer GVW ratings up to 51,000 lb.

GCW's up to 75,000 lb. New T-950 Tandem is rated for 75,000-lb. GCW. Biggest single-rear-axle models are rated for 65,000-lb. GCW.

Front-axle capacities up to 15,000 lb. Choice of three front axles in most new Ford Extra Heavies. Rated capacities of 9,000, 11,000 and 15,000 lb.

Rear-axle capacities up to 29,000 lb. Wide choice of rear axles includes single-speed and two-speed, single reduction and double reduction types. Capacities range from 18,000 lb. to 29,000 lb.

Bogie-axle capacities up to 38,000 lb. For '58 there are *five* Ford basic tandem axle models. Biggest of the *five* is the brand-new T-950 which features a tandem rear-axle assembly rated for 38,000 lb. Other bogie-axle capacities range down to 22,000 lb. for Ford Series T-700.

New transmissions. Roadranger transmission available in all ten new Ford Heavies. Up to 33% less shifting. Engines operate in peak horsepower range, use less fuel. "Short Fourth" transmissions also available on "F" and "C" Series.

FORD TRUCKS COST LESS

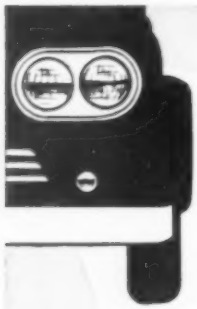
LESS TO OWN . . . LESS TO RUN . . . LAST LONGER, TOO!

Truckers Go to High Court . . .

. . . seeking a reversal of a U. S. District Court decision barring Schaffer Transportation Co. from hauling granite in competition with railroads. Schaffer, in cooperation with the American Trucking Assns., is questioning ICC interpretation of the National Transportation Policy.

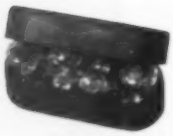
Schaffer had sought authority to haul from South Dakota to eastern states and from Vermont to the Midwest. ICC denied the application. The U. S. District court, in 1956, held the ICC decision was final.

The ATA-Schaffer brief states that "certain shippers will find themselves with only rail service to rely on, attempting to compete in common market places with other shippers which have the benefit, both rate and servicewise, of competition between two forms of transportation."



NEW!

THE B-103



THE B-101
Carries spare bulbs and fuses only.

THE B-102
Carries one sealed-beam unit (No. 5040S or No. 5400) and bulb, fuses.

TWIN SEALED-BEAM BULB and FUSE KIT

Here is the *newest* 1958 model of the very popular Anthes Bulb & Fuse Kit. This new Anthes Kit meets state and ICC requirements which now make it necessary to carry *two sealed-beams* and other bulbs for each type of light on the new trucks and tractors with dual or twin headlights. (No. 4001 & No. 4002.)

Anthes *leads* again with this compact, portable, sturdy, protective case to hold a handy arrangement of required items, cushioned in rubber. (Contents not included.)

Write to us for prices and delivery on the B-103 kit. Anthes Co., Ft. Madison, Iowa.

Anthes THE FIRST LINE OF SAFETY

flags • flares • fuses • lights • mirrors reflectors • fire extinguishers

Cylinder Misfire: Here Are 6 Reasons

WHEN YOU THINK of a cylinder mis-firing, you usually think of a fouled sparkplug, but the cause is often a result of other factors. Misfire actually means failure to ignite the fuel charge. Obviously, a combustible mixture must be present in the cylinder to fire, and it must have a spark of sufficient intensity to be ignited. If the fuel charge is normal, and fails to ignite, you can pinpoint your trouble at the plug.

What really happens . . .

. . . when a sparkplug, "breaks down" may be due one of six possible conditions:

(1) The sparkplug gap may be so small that there's insufficient combustible mixture between the electrodes.

(2) The gap may be so wide that the ignition system is unable to supply enough voltage to jump the gap.

(3) The gap can be bridged by a conduction deposit which prevents a normal sparkplug discharge. This is a "fouled plug."

(4) The high voltage can short over the exterior of the plug—this is called "flashover."

(5) The high voltage can leak to the ground through a direct mechanical break in the insulator.

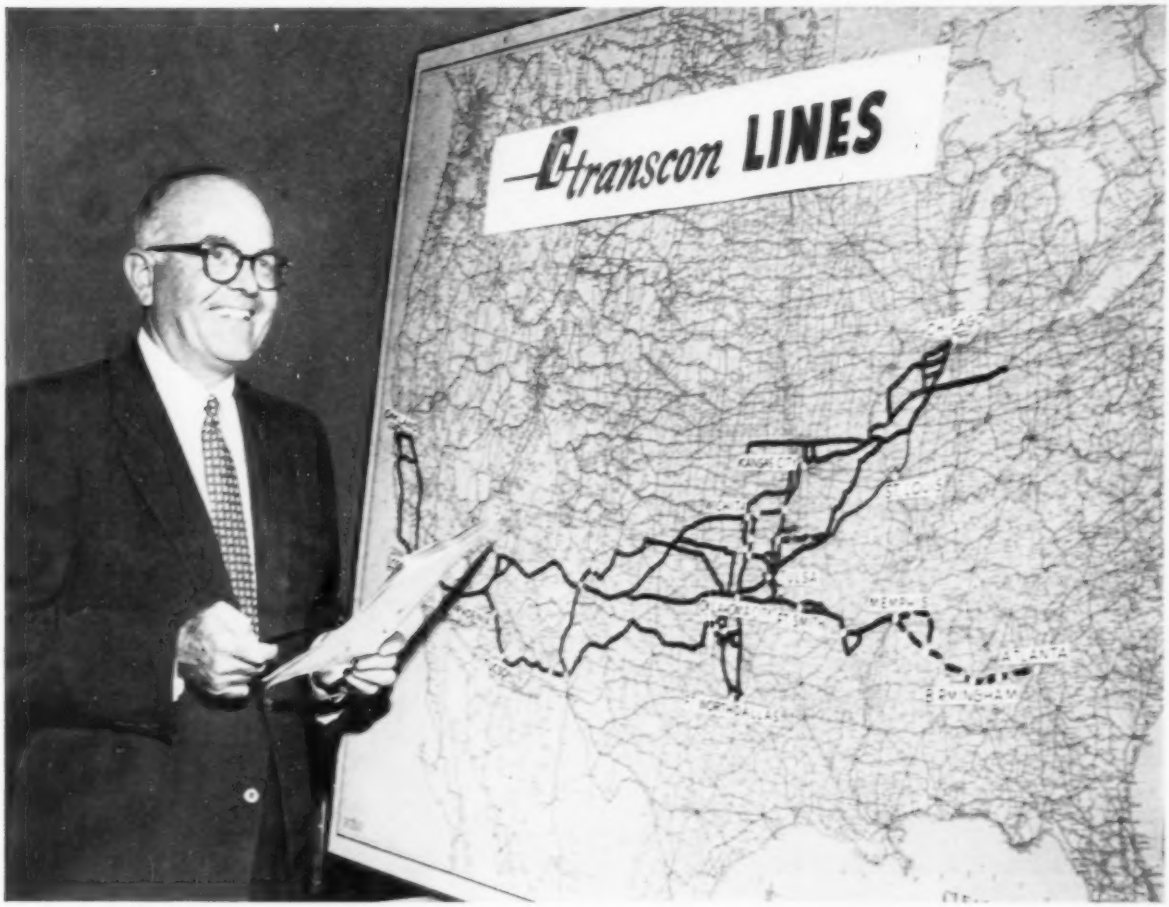
(6) High voltage can leak to the ground through conductive deposits on the firing surface of the insulator. Then, energy is drained and the ignition system can not build up sufficient voltage to jump the gap.

Most common source . . .

. . . of misfiring trouble is the fouled plug.

According to surveys conducted by Champion Spark Plug Co., a great majority of the cars on the road today have one or more cylinder misfiring, usually due to dirty or worn-out spark plugs.

When conductive deposits are removed, either by cleaning or by burning them off at higher speeds, firing ability is largely restored. Putting a sparkplug tester to work in your shop can help check the efficiency of your vehicles.



"For the long haul, communications mean everything"

Scribner Birlenbach, *President, Transcon Lines*

"Aside from equipment and terminals, I can think of no single factor more essential to a long haul business than good, dependable communications," says Scribner Birlenbach, President, Transcon Lines, of Los Angeles, Calif.

"Our Bell System private line teletypewriter network is like communications lines to an army," adds Mr. Birlenbach. "This service supports our forward operations, keeps us in command of all units at all times. We need this kind of control."

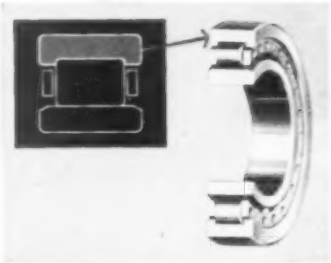
To Transcon, "forward operations" means 2500-mile, straight-through hauls from the Pacific Coast to the Midwest and the industrial Southeast. Teletypewriter reports on every over-the-road unit speed across the continent, alerting terminals in time to schedule local deliveries and return loads.

A review of your own communications may well suggest profitable improvements. The best starting point? A talk with a telephone representative. Just call your Telephone Company business office.

BELL TELEPHONE SYSTEM

PRIVATE LINE TELEPHONE • PRIVATE LINE TELETYPEWRITER • DATA TRANSMISSION SYSTEMS
CHANNELS FOR: REMOTE METERING AND CONTROL • TELEPHOTOGRAPH • CLOSED CIRCUIT TV

Loggers' "weight-lifter" tests bearing stamina!



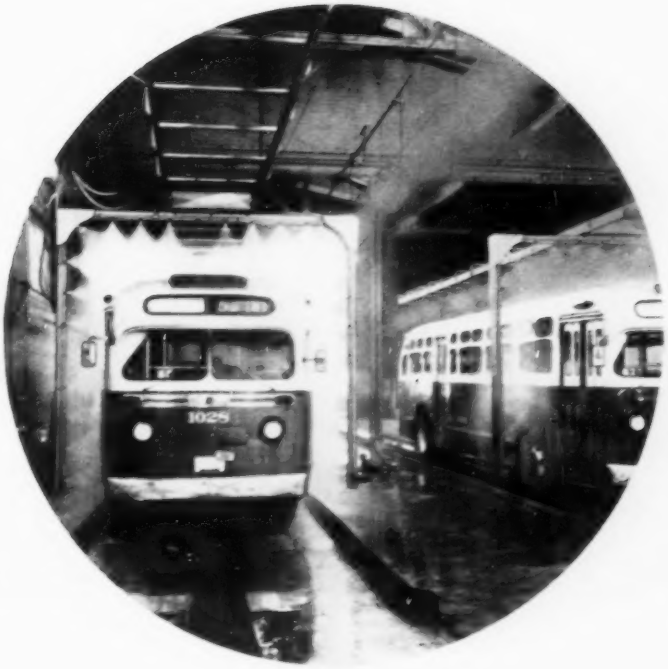
TWO-LIP RACE INCREASES RIGIDITY

Two parallel shoulders made integral with the outer race, as shown in gray above, increase rigidity and durability—keep rollers in proper alignment. Precision-ground rollers and races give quieter, smoother operation.

Tossing around logs 6 feet in diameter like toothpicks is no job for a softie! This machine has to be *built* for it right from the start—*right down to the bearings.* And that goes, too, for the trucks which haul these back-breaking giants over the most rugged terrain. Bower tapered and straight roller bearings have been *engineered* for just such work as this—to last longer, perform better under any road or load condition. Painstaking quality control plus basic bearing design refinements—like those shown at left—have reduced Bower Bearing failure to a practical minimum. *Whatever* your product, if it uses bearings, specify Bower! There's a complete line of tapered, straight and journal roller bearings for every field of transportation and industry.

BOWER ROLLER BEARING DIVISION
FEDERAL-MOGUL-BOWER BEARINGS, INC. • DETROIT 14, MICHIGAN

BOWER ROLLER BEARINGS



JETOMATIC

the only fully automatic

Profit tested

VEHICLE WASHER

Money *saved* on operating costs shows up on the same side of the ledger as *profits*.

Jetomatic has a proven history of *savings* that covers over 1,500,000 hours of washing. This history *proves* that you can *profit from a savings* of from 25c to 55c on every washing.

Where profit minded management studiously selects vehicle washing equipment—JETOMATIC units are chosen in 2 out of 3 cases.

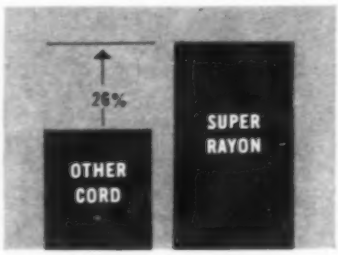
Write for further information about Profit-Tested Washing.

JETOMATIC, Incorporated.
150 Wakelee Avenue, Ansonia, Conn.

so I let 'em talk me out of

SUPER RAYON CORD TIRES

and look what I've lost!



Premium Strength + Long Runs + Retread Economy

Today's rugged new Super Rayon cord is 50% stronger than the rayon of a few years ago. It's far stronger than a tire cord ever has to be—pound for pound, it's as strong as steel! Super Rayon can take it!

Actual driving tests show 14 to 26% longer runs with Super Rayon cord tires. Rayon clings to rubber tight, flexes with it right, resists shrinking and stretching. Stability means less strain on rubber, longer wear!

Rayon *naturally* resists "growth" under heat, so there are fewer steps needed in retreading. Less special treatment means important economies. That can *really* add up for you as a fleet operator.

Today's new Super Rayon is a vastly improved cord, 50% stronger, 100% more flexible, 50% higher in impact resistance than rayon used to be. Insist on Super Rayon satisfaction with low operating costs!

AVISCO TIRE RAYON

AMERICAN VISCOSE CORPORATION
350 Fifth Avenue, New York 1, N. Y.

ONE BIG OBSERVATION DECK is the effect the designers worked to get in the 39-passenger luxury model. Slated for sale to Greyhound, a lot hangs in the balance as this . . .

New Mack Intercity Model Starts Tests

GREYHOUND IS STARTING TESTS on a new Mack bus designed to offer luxury accommodations for 39 passengers. The entire interior of the bus is treated as an observation deck and fitted with large, unobstructed window areas at the sides and roof.

The bus was designed and built by Mack, utilizing ideas for passenger comfort developed by officials of Greyhound. This is Mack's second venture into the intercity bus field. The company's first model was announced last September.

The bus was first shown at the opening of Greyhound's new million-dollar national offices at Niles, Ill., in December, 1957. Speaking there, Greyhound president Arthur S. Genet said: "We believe this bus represents a revolutionary advance in bus styling and comfort. And we're prepared to go forward with a broad program to test its over-all operating features." The road testing is currently in progress.

The largest window area ever used . . .

. . . on an American bus is Mack's claim for the construction of the high-level passenger deck. A wrap-around windshield is used in the rear as well as the front of the bus, and special "sky watch" windows are built into the ceiling along the full length of the vehicle.

The external dimensions are standard for cross-country buses: 40 ft long, 8 ft wide and 11 ft high. Easier passenger movement is provided by a one-level flat door, eliminating a step-down aisle-well. Entire area is air conditioned.

The new model is also equipped with Mack's airglide suspension system—and power is supplied by Mack's 255 hp-turbocharged Thermodyne diesel.

Greyhound has not ordered yet . . .

. . . and plans extensive road tests before deciding to replace the GM Scenicruisers it now has in use. Although the new bus is a result of talks between Mack and Greyhound, GM has not yet lost out in its bid to retain Greyhound's business. Total orders for new buses, when Greyhound decides, may total $19,000,000. In the past, Greyhound's purchases were almost exclusively from GM.

PERFORMANCE IS THE PAYOFF!

That's why Bendix Electric Fuel Pump Sales are Zooming

There's no substitute for on-the-job performance. That's why people who have tried all the others always come back to the Bendix* Electric Fuel Pump when they need "must do" performance. The Bendix pump has passed all the tests. Under military supervision, it proved itself at 114° Fahrenheit as well as at 76° below zero. No other pump *anywhere near its price class* could make the grade. The Bendix Electric Fuel Pump is easy to install and service, delivers more gallons per hour—and *positively eliminates vapor lock.* It's the best fuel pump built.

*REG. U.S. PAT. OFF.

Bendix

ELECTRIC FUEL PUMP

BENDIX AVIATION CORP. (Eclipse Machine Div.), Elmira, N.Y.

KEN *quality job-designed* **HAMMERS**

Cut Costs • Save Labor • Reduce Downtime

The KEN-TOOL Mfg. Co.-AKRON 5, OIHO

Model RT-1500; 150,000= capacity (2 Timken Axles)

Autocar 6x4 Model AP-40

HENDRICKSON TANDEM

for every phase of the construction industry

Hendrickson 8x4 Crane Carrier

Model T-600, 60,000= capacity (Eaton 48-M Tandem)

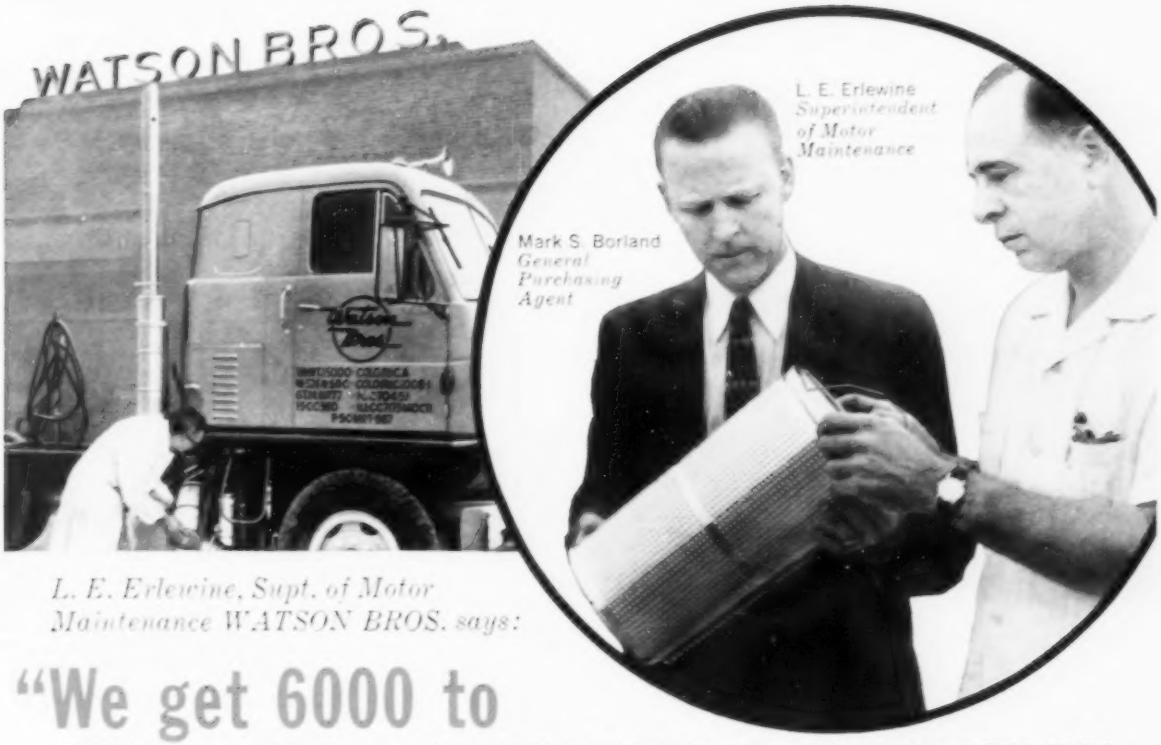
Model T-368, 36,000= capacity (Shuler Axles)

Tractor Model RT-320 32,000= capacity

Talbert Trailer Model RSO-365 36,000= capacity

Talbert Dolly Trailer Model RSO-320 32,000= capacity

HENDRICKSON MFG. COMPANY • 8001 WEST 47TH STREET • **LYONS** (CHICAGO SUBURB), **ILLINOIS**



L. E. Erlewine, Supt. of Motor Maintenance WATSON BROS. says:

"We get 6000 to 8000 miles of EFFECTIVE FILTRATION from a single DIESELPAK"*

Here's powerful proof that superior performance COSTS LESS than ineffective substitutes

Only LUBER-FINER DIESELPAK, with its *exclusive* specially processed media, removes oil contaminants *effectively*—FAR LONGER THAN ANY SUBSTITUTE PACK.

DIESELPAK—designed expressly for use with H.D. detergent compounded oil—removes not only injurious suspended solids, but also colloidal impurities (often more destructive) *without affecting the additives.*

Thus LUBER-FINER DIESELPAK

1. COSTS LESS than ineffective substitutes because it gives MORE MILES of *effective filtration.*
2. Also ADDS THOUSANDS OF MILES to ENGINE AND OIL LIFE because its exclusive engineered protection CLEANS OIL FASTER AND KEEPS IT CLEAN LONGER.

STANDARD AND OPTIONAL EQUIPMENT—On leading Diesel Trucks, Tractors and Stationary Engines.

* A typical statement of many users, engineers, and original equipment manufacturers on file.

VISUAL PROOF why DIESELPAK is The Standard of the Industry

Positive end seals prevent the oil from by-passing. The oil is filtered through the patented media of the DIESELPAK which removes colloidal particles and other contaminants without adversely affecting the additives.

The oil then passes through several layers of protective fibrous material which is scientifically engineered to positively prevent media from migrating into the engine.

World renowned engineered protection is enjoyed only by the users of the genuine LUBER-FINER "DIESELPAK."

Luber finer

WRITE FOR INFORMATION—how to get MORE MILES of effective lubrication at LESS COST. Dept. 32.

LUBER-FINER, INC.
2514 South Grand Avenue, Los Angeles 7, California

Transit Prexy Loses Job in Policy Row

Twin City Rapid Transit fires its president. He claims high dividend harms service and maintenance.

FRED A. OSSANNA, president of the Minneapolis bus firm, has been discharged by the company's directors over a squabble about dividend policy. This follows the recent firing of Ossanna supporter, B. M. Larrick, who had been general manager of the line.

Main bone of contention is Ossanna's feeling that service and maintenance of the fleet is suffering because of a too-high regular dividend rate. Company chairman, E. N. Olson, has stated that neither service to the public nor adequate maintenance has been endangered by the company's present dividend rate of 45c quarterly on its shares of common stock.

Substantial savings . . .

. . . have been made on purchases of material for the company since the dismissal of Larrick—that's Olson's contention.

Olson's claim, supported by vote of the board of directors, is that the Ossanna-Larrick management team is incorrect in laying any blame for operating deficiencies on dividend rates.

Ossanna was outvoted 5-4 . . .

. . . on the board, according to him, over his opposition to any substantial reductions in service or maintenance expenditures.

The ousted executive says he wouldn't go so far as to recommend cutting the dividend in half. But he does say the dividend is unfair and will result in "crippling reductions" in both service and maintenance.

A new president was named . . .

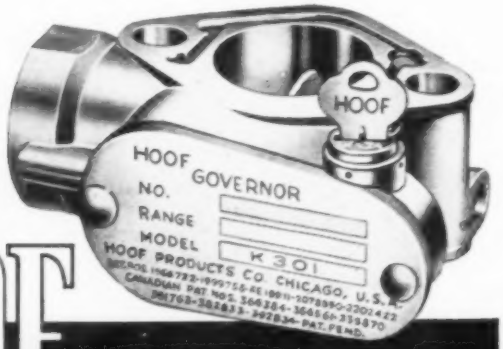
. . . to succeed Ossanna immediately. He is Dr. David E. Ellison, executive vice president and medical director of the company. Dr. Ellison says he believes his appointment is a temporary measure, to be reviewed at the annual meeting of the board.

Ellison is one of the five-man majority on the board who voted against Ossanna, and he says this about the policy disagreement:

"The differences between us didn't stem from attitudes toward the amount of service either group wanted . . . All cuts started before the split-up."

The company was warned . . .

. . . about concern shown for its affairs by the state regulatory agency. The chairman of the Minnesota Railroad and Warehouse Commission also warned the firm about cutting maintenance to protect high dividends.



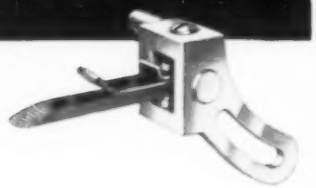
HOOF GOVERNORS

give you the two most important factors in any fleet operation . . .

ECONOMY SAFETY

Fleet operating figures prove the dollar-wise effectiveness of HOOF Governors in all vehicles . . . greater gas and tire mileage, less maintenance and repair, fewer accidents.

After more than 28 years there's still no single item bought that costs so little, saves so much.



Exclusive patented Cantilever Spring assures Hoof's more accurate speed control, simplified construction and longer life.

Write for specific facts on your operations.

HOOF PRODUCTS CO.

6543 So. Laramie Avenue • Chicago 38, Illinois

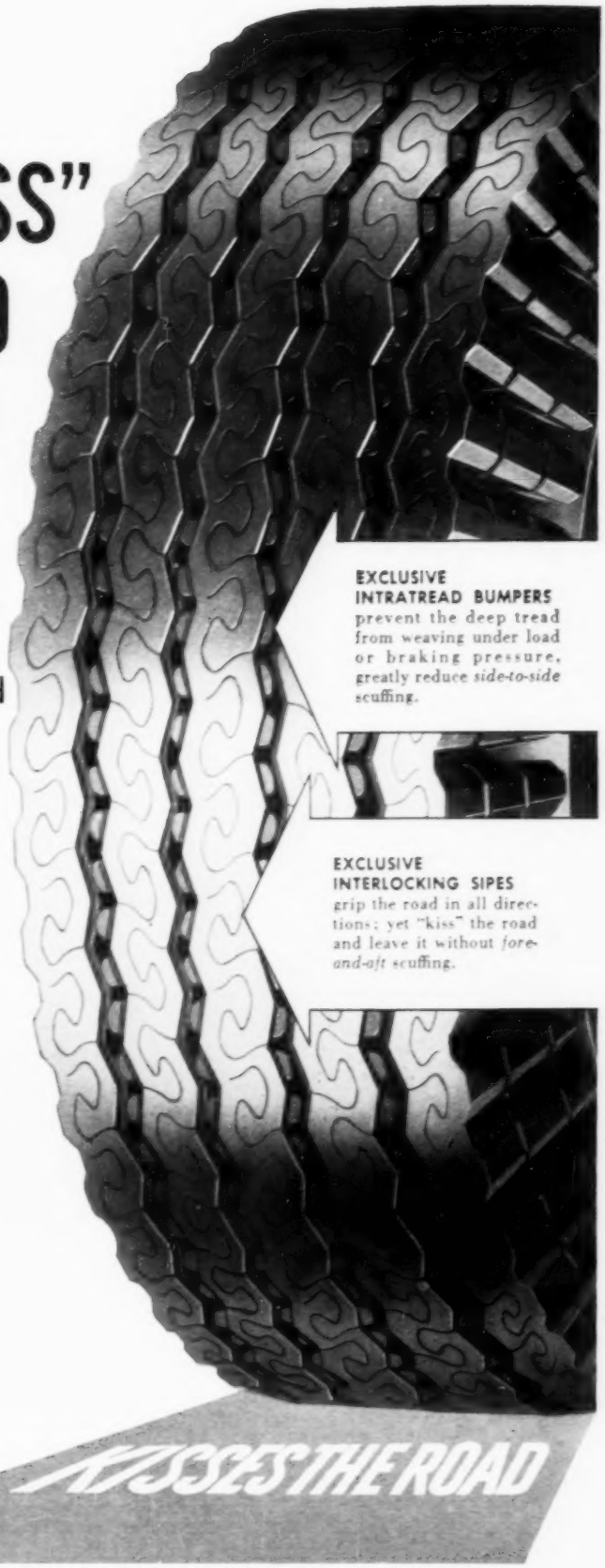
PATENTED "KISS" WORTH 50,000 EXTRA MILES!

New tread invention makes Armstrong Miracle S-D Tires roll instead of scuff . . . to set amazing over-the-road mileage records!

When you run *your* first tests on these sensational new tires, be prepared for a pleasant surprise. They'll probably show up to 50,000 miles more than you normally expect, before recapping! That's the actual experience of truckers who have used them.

The reason is — these tires "kiss the road". Tire engineers have long known that while a tire *rolls* freely, tread wear is negligible. But when tread is dragged, even a fraction of an inch, scuffing causes rapid wear.

Miracle S-D Tires lick scuffing two exclusive, patented ways. Interlocking sipes (see diagram) let the tread "kiss" the road hello and goodbye. Intratread bumpers prevent "rocking" — add stability so that the deep treads can't weave. The effect on mileage is phenomenal . . . and drivers love the improved traction and steering. Let us give you the facts and arrange a test.



ARMSTRONG
MIRACLE S-D
TRUCK TIRES

The Armstrong Rubber Co.,
Home Office,
West Haven, Conn.

PACKARD ENGINE

Even Steam Cleaners

"404" LOW-TENSION CABLE

Stranded Copper conductor covered with tough coat of Packard "404" plastic. Small diameter, highly flexible and wear resistant.

"440" IGNITION CABLE

Long the leader, this Packard-developed high-tension cable continues to be used on more vehicles than any other except those using Packard TVRS.

TELEVISION-RADIO SUPPRESSOR CABLE

This Packard exclusive suppresses radio and TV interference and is original equipment on millions of vehicles.

COMPARTMENT CABLE

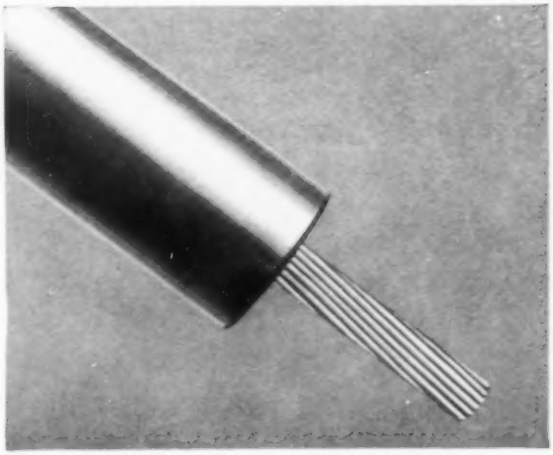
can't harm it!

Here is a compact, highly flexible low-tension cable that is practically immune to wear.

Developed by the research and engineering departments of Packard Electric, this cable is insulated with a tough coat of special plastic that withstands heat, oil, steam cleaning compounds and other deteriorating conditions. It's designed for the toughest going.

Engine Compartment Cable is a Packard exclusive and is one of the many reasons why Packard is the first choice of original equipment and replacement users.

Another rugged performer... Packard "SUPER-DUTY CABLE"



Designed for exposed wiring requirements. Special tough plastic insulation has extra resistance to wear, knocks, and weather conditions. Get the facts today on how this and other Packard Cables can cut your operating cost through longer service life.

Whatever your cable requirements, deal with the world's largest producer of automotive cable—Packard. It's the original equipment line that is used more than all others combined. Available everywhere through The United Motors System.

BATTERY CABLES

Special design delivers full starting power. Provides extra flexibility and strength. Additional features at no extra cost, make replacement easier, deliver top electrical performance.

Packard Electric

Warren, Ohio

"Live Wire" division of General Motors

Grumman Aircraft

BREAKS Profit Barriers

With Newest Trailer Design in 30 Years

Grumman, with 28 years experience in designing and building more than 24,000 fast and tough aircraft, breaks through in the transportation field with the first completely new trailer design in 30 years.

AEROBILT BREAKS ROAD SHOCK BARRIER with exclusive Torsilastic* Suspension (proved by 10 years of road tests) that insulates body and cargo from road shock.

AEROBILT BREAKS TIRE COST BARRIER with the first tandem of eight independent wheels and brakes.

AEROBILT BREAKS SAFETY BARRIER with unmatched stability and brake control.

AEROBILT BREAKS WET FREIGHT BARRIER with a cargo container as waterproof as Grumman amphibious airplanes and metal boats.

BREAKTHROUGH

*Reg. T. M. Goodrich

AEROBILT BREAKS WEIGHT BARRIER with the lightest weight per cubic foot of cargo space.

AEROBILT BREAKS MAINTENANCE BARRIER with Torsilastic Suspension because it requires less service, and with a body design free of ordinary wear-out factors.

AEROBILT BREAKS DEPRECIATION BARRIER with a trailer that has a longer maintenance-free life than normal depreciation periods.

AEROBILT BREAKS PROFIT BARRIERS! Cuts claims. Less shock damage. Keeps dry freight dry. Lowest maintenance costs. Longest tire mileage. Increased payload. Greater earning capacity after depreciation.

to higher profits with aerobilt trailers

Grumman AEROBILT

Wire, phone or write AEROBILT BODIES, INC., TRAILER DIVISION Athens, New York

GM Law Suit Hits Cleveland Transit

THE GOVERNMENT'S CIVIL LAWSUIT charging General Motors with monopolizing the manufacture and sale of transit buses has spread far afield from Detroit. Now Cleveland Transit System and six other municipally-owned fleets are involved.

CTS has been forced . . .

. . . to adopt specifications favoring GMC, according to the Government. The Government also claims that this discrimination springs from motivations other than a belief that GM buses are best adapted to the particular needs of the transit system.

Other fleets said to have been induced to favor GMC specifications include: the cities of Euclid, Ohio, St. Petersburg, Fla., and Phoenix, Ariz.; San Francisco Municipal Railway; Metropolitan Transit Authority, Boston; Department of Street Railways, Detroit.

GMC is also accused . . .

. . . of circulating information on alleged inefficiency of gas and propane buses, as well as spreading reports that other bus manufacturers would not remain in business.

Furthermore, GMC "induced officials of municipally-owned transit systems," the Government's petition states, "to adopt bus specifications for use in attaining so-called competitive bids which prevented other manufacturers from competing. Donald C. Hyde, general manager of Cleveland Transit System, is also mentioned as one of these officials.

Most recent flare-up . . .

. . . on CTS specifications involved delivery of two Mack buses. Hyde would not accept them. Hyde said that Mack's district sales manager, H. F. McNulty, "volunteered" to install turbochargers on the buses for the purpose of improving performance. McNulty claimed he "volunteered" because Hyde wanted it.

According to Mack officials this addition of turbochargers would increase the fuel consumption and reduce its fuel economy advantage over GM buses. They also stated that the cost of each turbocharger ($400) would take the bus out of a competitive price position with GM.

Mack has objected to overweight penalties in past bus purchases, claiming they hurt its competitive position. Hyde is said to have insisted on such penalties in specifications.

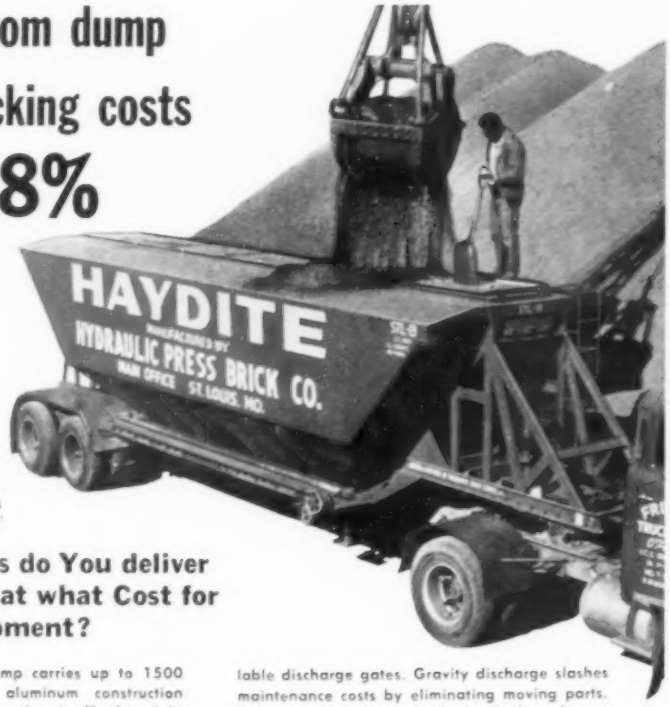
HUGE new bottom dump cuts trucking costs up to 28%

TRUCKERS PRAISE BAUGHMAN'S NEW EFFICIENCY

Saves Time, Money

A cost comparison among fleet owners reveals that tailor-made bulk transports like Baughman's rugged new Bottom Dump save up to 28% over less efficient bulk materials handling.

Baughman, world's largest manufacturer of automatic, self-unloading truck bod



Available in lengths 25' to 32'

. . . How many Tons do You deliver in an 8-hr. day . . . at what Cost for Fuel, Labor, Equipment?

BAUGHMAN Bottom Dump carries up to 1500 cu. ft.! Available in aluminum construction mounted on air-ride suspension; it affords weight savings up to 30% allowing greater payload. Ceiling loading hatches and dust-tight controllable discharge gates. Gravity discharge slashes maintenance costs by eliminating moving parts. Deliver cement, flour, feed, chemicals at lowest possible cost!

Get catalog, prices, facts today.

BAUGHMAN

Better SERVICE . . . Through Better Engineering

WRITE . . . BAUGHMAN MFG. CO.

114 ARCH ST.
JERSEYVILLE, ILLINOIS

Statistical quality control beats machine errors to the punch

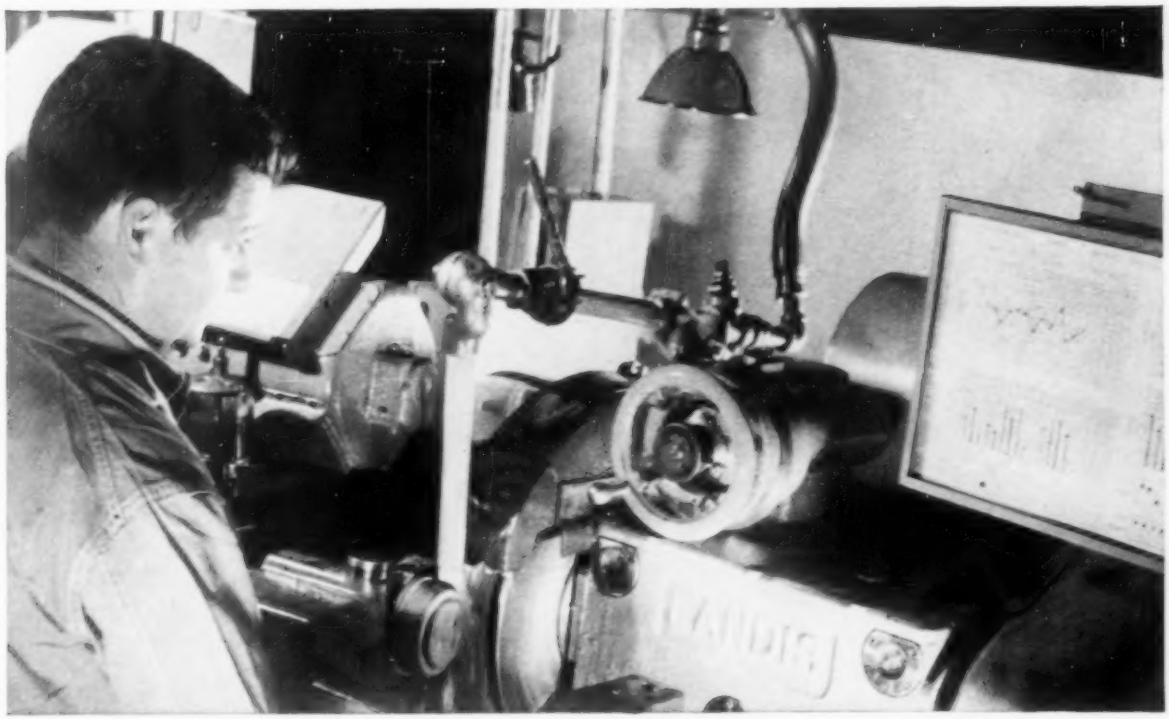
(Another reason why TIMKEN® bearings are first choice with truck manufacturers)

THE chart on the machine (below) appears on every grinder in our bearing plants. It plots the dimensions of several bearing cups or cones from each lot. By detecting trends toward off-size parts, we "catch" rejects before they happen.

This is statistical quality control, one of industry's latest techniques used to maintain quality. It's another way we make Timken® bearings better.

You get all these advantages only when you buy Timken bearings: 1) special-analysis Timken steels, 2) advanced design, 3) rigidly controlled quality, 4) precision manufacture. That's why Timken bearings are first choice with truck manufacturers.

Do as they do. Always specify Timken bearings. Make sure the bearing you use for replacement is as good as the original, the *same* as the original. Make sure it's stamped with the trade-mark "Timken". And for your free copy of "Timken Tapered Roller Bearings —Their Care and Maintenance", write Dept. OF-5, The Timken Roller Bearing Company, Canton 6, Ohio. Cable: "TIMROSCO".

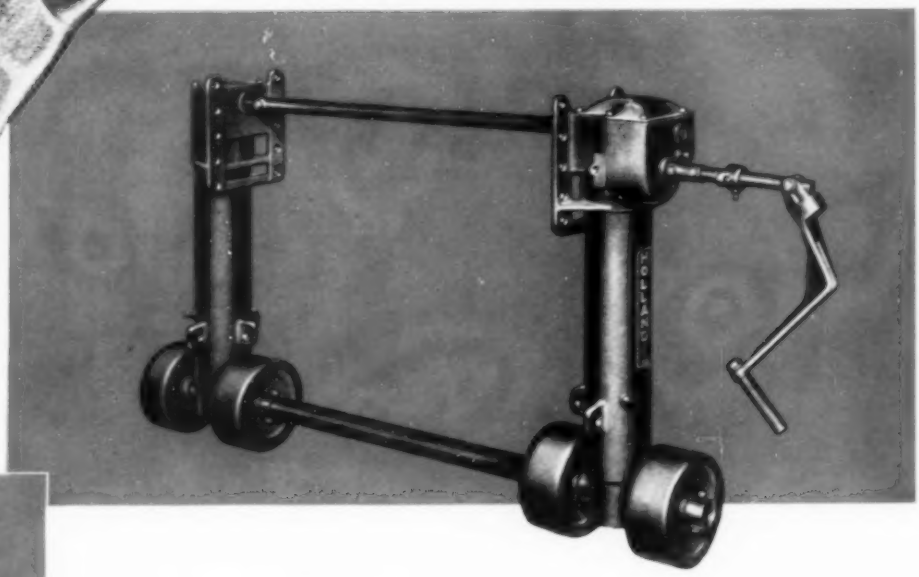


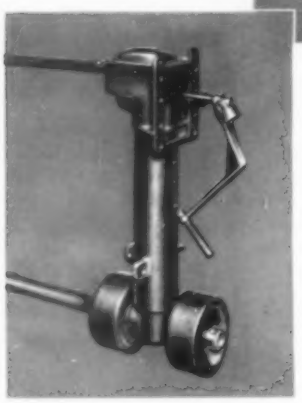
SINCE THEY'RE BEST WHEN THE TRUCK IS NEW, THEY'RE BEST FOR REPLACEMENT, TOO!

TIMKEN *TAPERED ROLLER BEARINGS ROLL THE LOAD*

TRADE-MARK REG. U. S. PAT. OFF.

HOLLAND'S NEW V-1000 TWO-SPEED LANDING GEAR





VERSATILE GEAR BOX

Cast Steel Gear Box is of a design that permits greatest variety of installation. Crank shaft allows greatest measure of ease and convenience.

The Greatest Value In Landing Gears

Holland Landing Gears have long been specified as standard factory installed trailer equipment, — and now comes the Holland V-One Thousand to add new laurels to the enviable reputation of the Holland line. Having a 37-ton capacity, its two speeds lift the heaviest loads with the greatest of ease and speed. On High speed there are 4½ crank turns per inch; Low speed, 31½ to the inch. Travel is as much as 16½ inches with the standard model; also made to meet other needs as may be specified.

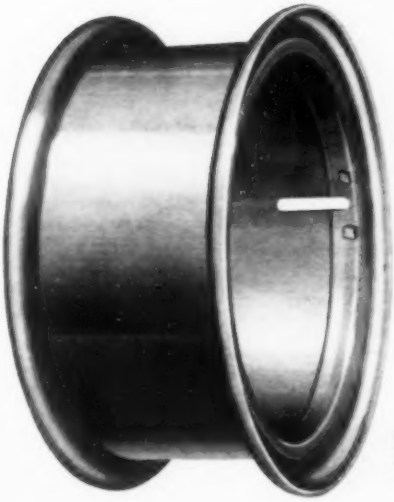
Cast steel gear box and seamless tubing; unsurpassed strength throughout, yet the total weight is only 243 pounds. Designed for greatest versatility and convenience, — note how the crank shaft is placed beneath and along side of cross shaft for elimination of interference with trailer rub rail, — note the versatile design of the gear box for accommodating variety of installations.

Truly, the greatest value in landing gears, — a fact that is more than borne out when you get all the details.

Holland Hitch

HOLLAND HITCH COMPANY - HOLLAND, MICH.

FIRESTONE'S CHALLENGER MEANS MORE PAYLOAD PER AXLE!



New Low-Priced Lightweight Rim Passes Heavyweight Stress Tests and Adds Dollars to Payloads.

Firestone's new Challenger cuts rim weight 8-12% per wheel. It's stress-tested to heavyweight loads in Firestone labs and performance-proved in over-the-road runs. Firestone Permaplate finish resists rust and corrosion. Two-piece rim construction gives fast mounting and demounting. Center to center spacing on duals makes possible quick interchanges. The Challenger runs true because like all other Firestone truck rims it's accurately sized to Firestone's precision standards.

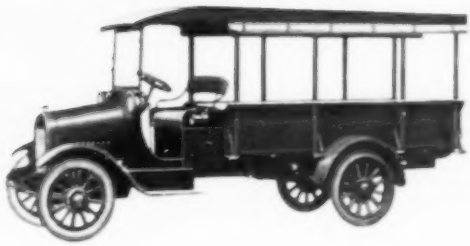
The Firestone Challenger is the lowest priced quality rim you can own. Buy it for replacements. Specify it as original equipment. You'll get more payload pounds on every run.

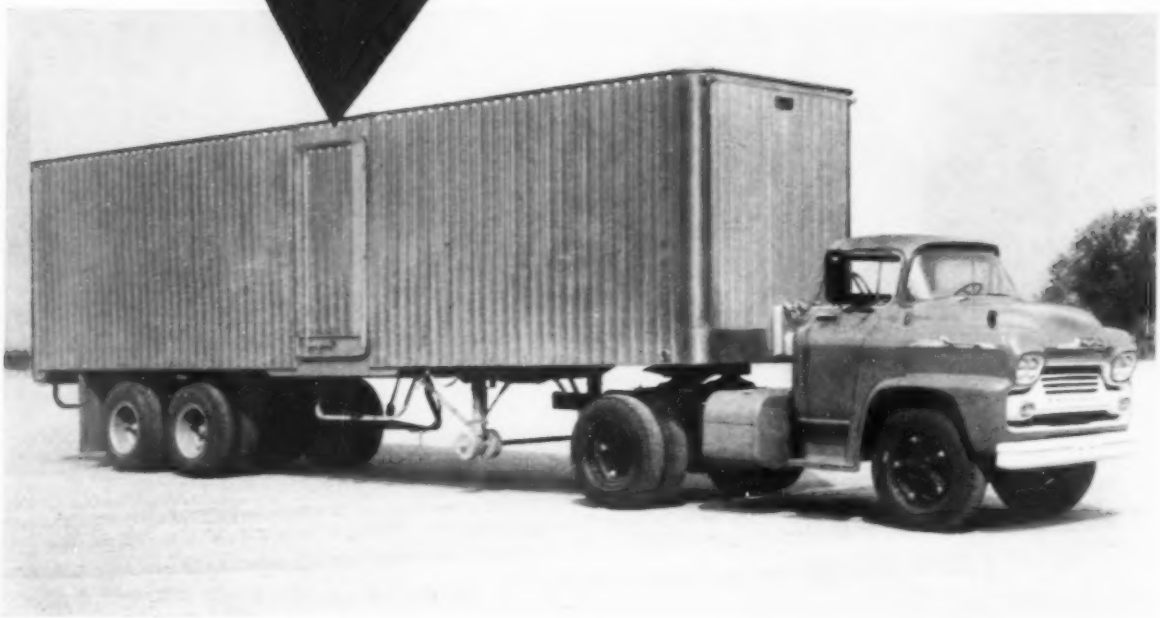
FIRESTONE STEEL PRODUCTS CO.
AKRON 1, OHIO

Enjoy the Voice of Firestone on ABC television every Monday evening. Copyright 1958, The Firestone Tire & Rubber Company

CHECK THE IMPROVEMENTS ON CHEVROLET

SINCE 1918





"Ahead of the field in modern delivery" was Chevrolet's proud boast in 1918. Forty years later this modern master of the highways is Chevrolet's newest entrant in the field of up-to-date transportation.

Note the many improvements: a new and more powerful V-8 engine . . . the compact new cab . . . the dual head lamps . . . and, of course, the Bostrom "Level-Ride" 80 Suspension Seat available on all Chevrolet Trucks.

The "Level-Ride" 80 is an entirely new concept in truck seating —the result of many years of experience and research by Bostrom engineers. When standing on a moving vehicle, you bend your knees to isolate vibration. When you are seated on a Bostrom "Level-Ride" 80, giant torsion springs in the suspension system act like knees to take up shock. The kidney-busting bumps and spine-jarring jolts of rough road vibrations are absorbed between the bottom of the seat and the floor of the cab. The driver floats over bumps and jolts in a straight line without back slap or back rub.

Used today by leading truck fleets . . . factory-installed as optional equipment by all truck manufacturers. Available for replacement on your existing trucks from your truck dealer or parts jobber. See your Bostrom distributor.

Bostrom Manufacturing Company, 133 W. Oregon St., Milwaukee 4, Wis.

LEVEL RIDE 80

Bostrom "Level-Ride" 80 Suspension Seat

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FLEET TRENDS . . .

Truckers are keeping an eye on the railroads in Congress this year—and with good reason. The rails have started a full-scale campaign for new legislation to pull them out of what is being called "the deteriorating railroad situation."

Stronger ICC policing of "pseudo-private" truckers—fleets actually for hire but occasionally posing as private carriers—was proposed last month in testimony before a Senate subcommittee. Rail spokesmen also asked Congress to ease up on legislation designed to help competing industries. Loosening of ICC regulations was requested to permit railroads to enter other fields of transportation.

The railroads have an added advantage in Congress this year—where they're always powerful anyway. Sen. George Smathers (D-Fla), chairman of the Surface Transportation Subcommittee of the Senate Interstate and Foreign Commerce Committee, has already said he expects some form of legislation aiding the railroads to be passed this year. Smathers' group is handling the current Senate investigation.

Trucker sentiment is divided on the railroad plight. There are those who see no reason for Congressional assistance to the rails, who cite the railroads as victim of a new industrial revolution. Others seem willing to see Congress aid the failing industry—but not at the expense of trucking.

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Truckers boosted their operating revenue by 9.41% during the last fiscal year, ended June 30, according to the ICC's annual report. The only other form of surface transportation showing a higher gain over the previous year was pipelines. Railroads and water carriers showed revenue drops.

The trend continues toward coordination of services among the different modes of transportation, despite an increase in the competitive struggle. This is especially true in such cases as piggyback and fishyback, the ICC says.

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The Teamsters will ignore ICC's "hot cargo" ruling until the issue is settled by the Supreme Court. This announcement comes from "in again-out again" Jimmy Hoffa, now controlling the union under the eyes of a three-man watchdog board required by the federal courts. Hoffa checked with his lawyers, then advised his locals to hold off. Decisions on "hot cargo" should be coming from the high court this summer.

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ICC has made 19 legislative recommendations to Congress for this session, but only four of the proposals are new. Others are leftovers not acted upon last year. At that time, ICC offered 25 changes, got nine.

ICC regulation over all for-hire carriers, except those spe-

Continued on next page

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cifically exempted, has been suggested again. Another second try: the controversial measure to tighten exemptions on transporting agricultural commodities, fish and livestock.

Exemptions for carriers from controls over mergers and consolidation may be determined on a new basis, if one of the new recommendations should carry. ICC feels gross operating revenue should be used as a yardstick rather than the number of vehicles, as at present.

Contract carriers may be given the same exemptions as common carriers regarding unfair trade practices, investigations and reports. This new recommendation would affect only contract carriers already subject to ICC regulations.

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A cease-and-desist order has been recommended by the full commission in the wake of an ICC examiner's finding that Ace Lines, Inc., of Minneapolis was in violation of safety regulations. The Ace report was the fifth action resulting from investigations of six Class I motor carriers that got underway last August. So far, two companies—Ace and Penn-Dixie Lines, Inc., of New York, Pa.—have been found in violation of safety rules. Three others have been found in compliance. A report on the sixth case is pending.

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Officers elected by the Truck-Trailer Manufacturers Assn. at its 17th annual convention in Palm Beach, Fla., are: President -Harry Eyler, Trailmobile, Inc.; V-P's—F. S. Neumann, Fruehauf Trailer Co.; George Mercer III, Great Dane Trailers, Inc.; P. M. Heinmiller, Utility Trailer Manufacturing Co.; C. W. Alexander, Lufkin Foundry & Machine Co. Treasurer—Ralph Veenema, Veenema & Wiegers.

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Another fleet stock is on the big board of the New York stock exchange. A total of 1,282,500 shares of $1 par value common stock of McLean Trucking Co. has been admitted to trading under ticker symbol MLN. Previously, McLean's stock was traded over the counter. (See p 13 for fleet stock prices.)

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Many state legislatures have trucking bills before them. A measure introduced in Arizona would add one cent to the state's five-cent-per-gallon gasoline tax. Arizona Governor McFarland supports the bill. Gasoline tax increases also have been proposed in Kansas, Massachusetts, New Jersey, New York and West Virginia—although in some of these states specific bills have not been filed as yet.

A Mississippi bill would increase overall lengths of combination truck-tractors and semi-trailers. And a Georgia resolution calls for revocation of the 1952 constitutional amendment prohibiting diversion of highway-user tax revenue.

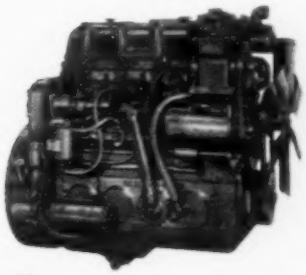
What Bill Barranco thinks of P&H DIESEL

When Mr. Wm. S. (Bill) Barranco, president of Liberty Trucking Co., sees reports from his fleet, he knows that P&H Diesels deliver "far above average performance." Mr. Barranco says, "The steady flow of uniform power and speed has reduced our running time without overspeeding."

Until Harnischfeger developed the P&H Diesel, fleet operators had to be satisfied with operating characteristics which did not fully utilize the potential of the diesel engine. But now, P&H Diesels have changed this situation with:

- **faster starting, better idling than any diesel engine on the road**
- **highest horsepower per pound of weight**
- **25% fewer working parts and all wearing parts interchangeable**
- **exclusive "Unitized" power assembly that can be replaced in less than 60 minutes.**

Specify the one diesel with all the features that deliver top performance—P&H Diesel. P&H Diesel Engine Division, Crystal Lake, Illinois.



P&H DIESELS

Fastest Growing Name in Diesel Power

You are probably in a "diesel rut," if you haven't compared the performance and operating costs of the P&H Diesel with other diesels *recently*.

DIRECTIONAL SIGNAL LIGHTS
CLEARANCE AND MARKER LIGHTS
KEEP YOUR DRIVERS SAFE
KEEP YOUR FLEETS MODERN
KEEP YOUR COSTS DOWN
with STATE APPROVED
ALCO
America's Finest
FLEET LIGHTING EQUIPMENT
Your ALCO dollar buys top quality, low-cost safety protection for drivers, vehicles and loads. All ALCO heavy-duty lights meet or exceed S.A.E. specifications. Smart, modern design improves fleet appearance—rich, tough finish keeps it bright looking longer.
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STOP
STOP LIGHTS
STOP AND TAIL LIGHTS

FLEET OWNER

SPECIAL REPORT

Survey Shows Instrument Use Is Growing . . . How Do You Compare?

TODAY, OVER 71% of the fleet owners in the United States and Canada use testing instruments either extensively or moderately. And with good reason. Instrument use in maintenance and preventive maintenance cuts cost five ways (p 77). Or to quote one fleet owner: "We have been using instruments extensively since May, 1956. The over-all results paid for the instruments in a very short period of time."

Starting on the next page you'll find the results . . .

. . . of a survey on testing instruments from 867 fleets operating in the United States and Canada. Here's a chance to find out how your use of instruments compares with a cross section of the best in fleets. You'll find the answers to such questions as: "To what extent do you use testing or checking instruments?" "Is instrument use growing?" "In what ways do instruments save money for you?" and "What methods of training are being used to instruct mechanics?"

Starting on page 80, you'll find three case studies . . .

. . . showing how three winners of FLEET OWNER's Maintenance Efficiency Contest have built their maintenance and preventive maintenance programs around the use of instruments. You'll see how one of the winners even shop-makes his own instruments when he's unable to purchase them. These stories will give you a chance to see some of the many and varied ways instruments can be put to use in your shop.

And beginning on page 78 you'll find a listing of all the instruments available with the names and addresses of the manufacturers of each of them. Introducing each section, there's a short rundown on the purpose and possibilities of the particular instrument. This special report is the most comprehensive study on instruments that's ever been compiled. Please let us know what you think of it. And let us know if it has led to any change in your own operation.

Here's a Report from 867 Fleet

And it shows conclusively that use of instruments gives the fleet owner five distinct benefits: slashes downtime, reduces maintenance costs, improves life of rebuilt units, saves on parts replacement and cuts road failures.

Vocational breakdown of 867 fleets participating in instrument survey

	Fleets	Buses	Trucks	Tractors	Trailers	Pass. Cars	All Vehicles
For-hire Carriers	128	—	4,977	5,585	7,940	692	19,194
Food Distribution	158	—	12,978	1,818	2,272	2,080	19,148
Government	71	—	6,296	458	486	3,439	10,679
Construction & Mining	82	—	2,091	435	510	413	3,449
Industrial	30	—	610	798	1,236	470	3,114
Petroleum	58	—	2,644	1,015	1,335	1,852	6,846
Public Utility	82	—	13,147	283	1,594	6,983	22,007
Wholesale-retail	59	—	2,898	320	489	460	4,167
Misc. & Leasing	32	—	4,131	498	982	1,550	7,161
Transit Bus	107	6,384	1,533	—	—	780	8,697
Intercity Bus	60	1,305	75	—	—	87	1,467
Total	**867**	**7,689**	**51,380**	**11,210**	**16,844**	**18,806**	**105,929**

INSTRUMENT SURVEY, completed in December, 1957, covers the practices of 867 fleets operating almost 106,000 vehicles.

To what extent do you use testing or checking instruments?

	Extensively	Moderately	Very Limited	Not at all
For-hire Carriers	26	59	31	7
Food Distribution	29	83	28	17
Government	24	38	8	2
Construction & Mining	10	33	24	11
Industrial	9	9	4	8
Petroleum	14	28	10	8
Public Utility	19	52	5	13
Wholesale-retail	9	24	15	11
Misc. & Leasing	6	17	5	3
Transit Bus	41	49	8	6
Intercity Bus	5	30	15	6
Total	**192**	**422**	**153**	**92**

OVER 71% OF FLEET OPERATORS in the U. S. and Canada use instruments either extensively or moderately.

1. To what extent do you use testing or checking instruments in your shop?

A glance at the figures given above will show the overwhelming acceptance of instruments as a basic maintenance tool, evidence that a large majority of fleets in the U. S. and Canada find they pay off.

Owners on Instrument Use in PM

WHEN YOU CONSIDER the benefits of using instruments for PM and testing, one thing becomes obvious. Fleets that don't use them or use them only occasionally are, in effect, *paying for the instruments they don't have*. Two of the many comments by instrument users illustrate this point: "We have been using instruments extensively since May, 1956. The over-all results show the instruments paid for themselves in a very short period of time." "By proper use of necessary instruments we have cut our road failures 50%."

Other facts brought out by FLEET OWNER's instrument survey (you'll get a detailed rundown on each question further on in the story):

- 71% of the fleet owners in the United States and Canada use instruments either extensively or moderately.
- Over 85% of the fleets are using more instruments today than they did in 1951.
- Over 64% of the fleets intend to purchase more instruments in 1958.
- Over 75% of the fleets think that the instruction books supplied with the instruments could be improved.
- Over 78% of the fleets train their mechanics in the use of instruments in their own shop.
- The use of instruments cuts costs five ways: reduces downtime, improves life of rebuilt parts, reduces parts replacement, reduces road failures and saves maintenance time.

What instruments are used most often? In the trucking industry, the five most commonly used instruments are (in order of use): the compression gage, the tire gage, the timing light, the air-compressor gage, and the torque wrench. For the bus industry the order is: the compression gage, the air-pressure gage, the torque wrench, the timing light, and the tire gage. Other instruments mentioned high on both lists: voltmeter, vacuum gage, hydrometer and micrometer.

Vocational breakdowns of the responses to each of the detailed questions on instruments will be found on this and the following four pages. Alongside of each summary table you will find FLEET OWNER's comments on each question. On the left hand page of this spread you will find a table giving a vocational and numerical breakdown of the fleets that responded to this survey, and the type of vehicles they operate.

On the other side of the fence, over 28% of the fleets use instruments either on a limited basis or not at all. Slightly less than 10% don't use them at all.

FLEET OWNER suggests that if you fall into the "limited use" or "not at all" category, it might prove valuable to re-examine the possibility of using instruments or more instruments. The fact that 71% of the fleets use instruments either moderately or extensively should show that they save money and improve maintenance. And the opinions expressed back this up.

The value of instruments is illustrated by a few of the comments from fleet owners who responded to this survey:

"We have been able to keep our shop personnel at a minimum only because we have and make use of testing and checking instruments."

"It would be folly to operate present-day automotive equipment without the use of modern testing equipment."

"Believe when instruments are put in properly trained hands, they can be the difference between a good, profitable operation and a passable, small-profit operation."

The question of fleet size and instrument use brought this comment: "Our fleet is too small to justify or bother with extensive testing equipment." While the survey showed that smaller fleets use fewer instruments, no fleet owner should conclude that his fleet is "too small" to use instruments profitably.

It's true, small fleets generally do less maintenance and don't have the "production line" set-up found in the very large outfits. But there are spots where any small fleet can save time and money by using instruments. As a matter of fact, FLEET OWNER recently visited a 14-vehicle shop that was extensively equipped with instruments. And the shop superintendent produced records showing how each of the instruments had quickly paid for itself.

As labor costs mount the time rapidly approaches when no fleet will be able to function without using instruments at least moderately.

For a quick picture of trends in instrument use, and a summary of what value most fleet owners put on the use of instruments, turn the page →

What about your use of instruments . . .

	. . . Has it increased since 1951?		. . . Will you purchase more in 1958?	
	Yes	No	Yes	No
For-hire Carriers	98	8	70	26
Food Distribution	114	21	72	47
Government	60	8	47	16
Construction & Mining	55	10	43	20
Industrial	14	6	12	7
Petroleum	41	8	34	11
Public Utility	67	6	44	24
Wholesale-retail	35	8	25	19
Misc. & Leasing	26	4	22	6
Transit Bus	72	19	39	41
Intercity Bus	44	6	17	22
Total	**626**	**104**	**425**	**239**

85% OF THE FLEET OWNERS use more instruments today than in '51. And 64% intend to buy more in '58.

Has use of instruments . . .

	Reduced downtime?		Cut cost of maintenance?		Improved life of rebuilt units?		Reduced parts replacement?		Reduced road failures?		Reduced shop personnel	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
For-hire Carriers	91	9	91	8	78	13	80	16	93	8	17	70
Food Distribution	109	10	111	14	88	24	86	29	125	6	12	101
Government	64	3	62	2	46	11	58	7	58	3	7	50
Construction & Mining	53	5	56	5	39	12	39	15	55	4	8	38
Industrial	19	2	19	1	14	4	14	5	14	4	4	14
Petroleum	39	4	48	—	35	5	33	8	38	5	10	26
Public Utility	56	9	54	5	38	14	50	12	60	6	11	47
Wholesale-retail	37	5	34	7	22	12	31	6	38	4	5	33
Misc. & Leasing	21	3	20	1	17	4	21	3	24	2	3	20
Transit Bus	79	5	84	3	71	8	70	12	83	6	27	49
Intercity Bus	37	9	44	5	35	9	40	8	40	9	8	32
Total	**605**	**64**	**623**	**51**	**483**	**116**	**522**	**121**	**628**	**57**	**112**	**480**

HERE ARE THE FIVE WAYS costs are cut for fleet owners who make extensive use of instruments in PM programs.

3. In what ways have testing instruments proved valuable to you?

The responses to this six-part question (chart above) show, without any question, the extreme value of instruments in today's maintenance picture. Overwhelmingly, the fleet owners who answered this question agree that instruments cut costs in five areas: they reduce downtime, cut maintenance costs, improve the life of rebuilt units, reduce parts replacement and reduce road failures. Strangely, only 19% of the fleet owners who responded say that the use of instruments has allowed them to reduce shop personnel. However, several of the comments on this question offer a clearer explanation of this figure:

"Instruments get adjustments 'on the nose.' We have not eliminated any mechanics as a result of using them, but I am now operating a larger fleet with the same number of men."

"By using testing instruments, we have been able

←2. Do you use more instruments today than you did in 1951? Do you intend to purchase more in 1958?

THE TREND TOWARD greater use of instruments is growing, as the chart at left shows. Over 85% of the fleet owners in the United States and Canada are using more instruments today than they used in 1951. However, the growth is not consistent for all vocational groups. For example, note that fleets in the construction and mining, and industrial fields are lagging behind the general trend. Because of their nature, it's easy to understand why construction and mining fleets are not keeping pace.

Industrial fleets are failing to keep up. Why? For years manufacturers have been using testing instruments in the production of their products and they know the value of them. Why, then have they not applied this same know-how to the operation of their fleets? Perhaps it's because the top management in this group tends to consider fleet operation as simply a service arm—and, as such, they can't see spending money for testing instruments. Of course, this is fallacious thinking as the results of this survey show.

Over 64% of the fleet owners in the United States and Canada intend to purchase more testing instruments in 1958. Many fleet owners took time to comment on this point:

"We will purchase any tool which can show a time-saving or quality-of-work improvement."

"We anticipate buying a number of new instruments during 1958."

"We feel that we need more instruments and hope to add some during 1958."

Or to put it in the words of another fleet owner: "Modern instruments and their correct use are an absolute necessity in the operation of any good fleet maintenance program."

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to enlarge our fleet operation without hiring more maintenance help."

"Without the use of instruments, we would have had to increase our maintenance personnel."

A more accurate picture of whether instruments have helped reduce manpower would have been produced if the question had read: "If your fleet has increased recently, has the use of instruments allowed you to maintain the larger number of vehicles with the same number of men?" No doubt the answers would have been overwhelmingly in the affirmative . . . proving that instruments have a sixth cost-cutting advantage.

There is a seventh area where instruments will save money but it has not been brought out by this survey. There's no doubt that the use of instruments produces better maintenance and, in turn, better maintenance helps to reduce accidents. Or, in other words, the use of instruments saves money by reducing accidents. Obviously, it is impossible to document the number of accidents avoided by a good maintenance program. But it is safe to assume that the better the maintenance, the less the chance of accidents caused by mechanical failures.

Another interesting fact about the responses to this question is that the total number of fleet operators responding to any one part of the six-part question is 200 less than the total who responded to the questionnaire. It's a safe bet that these 200 operators did not answer the question because their record systems (or lack of them) didn't give the answers. Which brings up a more important question: How are they going to sell the use of instruments to management without the facts to back up the story?

Almost every FLEET OWNER survey has turned up the fact that there is a large number of fleets (25%) that have inadequate record or form systems, or no record systems at all.

And, without records how can a fleet owner know whether a particular instrument or tool is paying for itself? How can top management be convinced of the need for an instrument? How can ways to cut costs best be determined?

If you don't have a record system, you'll want to check FLEET OWNER's story "Have You Revised Your Maintenance Forms Lately?" which appeared in October, 1957 (pp 153-168). This article was based on a study of over 3000 forms submitted by over 500 fleet-maintenance men. Reprints of this special report are available at the following prices: 1-49, 35c; 50-99, 30c; quantity prices on request. Address your inquiries to: Reprint Editor, FLEET OWNER, 330 W. 42nd St., New York 36, N. Y. So much information was gathered during the preparation of the article on maintenance forms that you'll find a form story on a specialized subject in every other issue of FLEET OWNER. This month, for example, look at the trailer form story on p 95.

For candid comments on instrument instruction manuals, methods of training and a list of instruments and names of suppliers, turn the page→

When you bring new instruments into your shop . . .

	. . . Do you train your mechanics?		. . . Where?		. . . Are instruction manuals		
	Yes	No	Manufacturer's School	Your Shop	Good?	Adequate?	Poor?
For-hire Carriers	98	14	32	90	34	62	9
Food Distribution	122	4	36	108	33	83	12
Government	60	6	16	57	17	37	13
Construction & Mining	53	15	13	48	14	41	8
Industrial	16	5	6	14	5	14	–
Petroleum	48	2	8	45	10	34	7
Public Utility	69	3	17	62	13	46	10
Wholesale-retail	40	6	10	34	10	30	3
Misc. & Leasing	22	4	8	20	4	18	4
Transit Bus	80	9	13	85	25	57	13
Intercity Bus	39	9	4	42	10	32	4
Total	**647**	**77**	**163**	**605**	**175**	**454**	**83**

SURVEY SHOWS most mechanics are trained in the fleet owner's shop . . . instruction manuals can be improved.

4. How and where do you train mechanics in instrument use? What do you think of instruction manuals?

IT MAKES SENSE that the majority of mechanics have been trained in the use of instruments in their own shops because only the more complicated instruments would require lengthy training in a manufacturer's school. However, the small number trained in manufacturers' schools indicates that

Here's a Listing of Instrument

This complete round-up will tell you what each instrument is designed to do and where you can get it. You'll find a whole new batch of possibilities here that will add new speed, new efficiency to your PM setup.

ANALYZERS

Exhaust Gas • These instruments are designed to provide a reliable means of detecting excessive fuel consumption by measuring exactly the amount of unburned fuel residue in the engine exhaust gas. Exhaust gas analyzers can be purchased separately or as one of the elements in a cluster of engine tune up instruments. Listed here are the names of makers of exhaust gas analyzing instruments:

Allen Electric & Equipment Co., 2101 N. Pitcher St., Kalamazoo, Mich.
Bacharach Industrial Instrument Co., 200 N. Braddock Ave., Pittsburgh 8, Pa.
Cambridge Instrument Co., Inc., 3809 Grand Central Terminal Bldg., N.Y. 17, N.Y.
Choldun Mfg. Corp., 331 East St., New Haven, Conn.
Electro Products Co., 445 E. 189th St., New York 58, N.Y.
Engelhard, Inc., Charles, 850 Passaic Ave., East Newark, N.J.
Gale-Hall Engineering, Inc., North Hampton, N.H.
Gow-Mac Instrument Co., Madison, N.J.
Hanson Co., Harvey E., Paw Paw, Michigan
Heyer Industries, Inc., Belleville 9, N.J.
King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio
Motoraide Corp., 2400 Emerald St., Philadelphia 25, Pa.
Permutit Co., 50 W. 44th St., New York 36, N.Y.
Schauer Mfg. Corp., 4500 Alpine Ave., Rossmoyne, Ohio.
Sun Electric Corp., Harlem and Avondale, Chicago 31, Illinois
Weidenhoff, Inc., Joseph, Algona, Iowa

DYNAMOMETERS

Engine & Chassis • The engine dynamometer is essentially a testing instrument for the engine rebuilding shop to measure the effectiveness of an engine overhaul job. The engine dynamometer is used to break-in a rebuilt powerplant, at the same time checking the power output and performance

some fleet owners are not taking advantage of the possibilities offered by these schools. There's no doubt that the majority of fleet owners think adequate training is vitally important. Here are a few of their comments on the subject:

"Instruments are only as good as the training given the man using them."

"Such equipment is only as good as the training you give on using it."

"Modern instruments and their correct use are a necessary part of fleet maintenance."

But it doesn't make sense that 77 of the fleet owners (see chart at left) say they have not trained their mechanics in the use of instruments at all. From these answers, you can conclude either that the mechanics were already trained in the use of instruments, or that they were given the instruction manuals and expected to train themselves. If the latter is the case, it could be a very risky procedure, as you will see when you read the rest of this section.

Instruction manuals could be improved a great deal, say a good many fleet owners (see chart at left). A total of 437 stated that instruction manuals are only adequate or poor. These typical comments indicate their feelings even more strongly:

"Instruction manuals could be a lot clearer for everyone."

"Manuals could be more explanatory and cover more of the subject than they do now. We have even gotten some manuals that were printed entirely in Spanish."

"Instruction manuals are not always adequate and are seldom excellent."

"Companies should furnish good books on testing equipment."

Most fleet mechanics approach a new instrument with a natural feeling of awe. But this feeling can be erased by simple education. After all, most instruments operate on simple, well-known principles. Once the mechanic understands these, the awe is gone and he can use the instruments properly and intelligently. The instruction manual must do more than just give the step-by-step procedure to follow —because, until the user understands his instrument, he'll never feel completely sure of the results he's getting. This is specially true when he gets readings or patterns that are just slightly different from the stock ones usually illustrated.

Summarizing: It's clear that instruments will help do a better job, but they must be used intelligently to give correct results. Without proper training, money spent on instruments is wasted.

Types and Their Manufacturers

under varying load conditions from light to full load and at all speeds from idling to peak.

The chassis dynamometer does what a road test is supposed to do but does it better and without need of the vehicle going outside the shop or moving a single foot. The chassis dynamometer permits operation of a vehicle under simulated conditions of road, load and speed. And since the job is performed in the shop the problems of traffic congestion and weather are eliminated.

Clayborne Mfg. Co., 429 N. Main St., Monticello, Ind.
Clayton Mfg. Co., Box 550, El Monte, Calif.
Eaton Mfg. Co., Dynamatic Div., Kenosha, Wis.
General Electric Co., Apparatus Sales Div., 1 River Rd., Schenectady 5, N.Y.
Link Engrg. Co., Detroit 27, Mich. (Electric)
Mid-West Dynamometer & Engineering Co., River Grove, Ill.
Otis Elevator Co., 260 11th Ave., New York 1, N.Y.
Taylor Dynamometer & Machine Co., Milwaukee 13, Wis.
Toledo Scale Co., Telegraph Rd., Toledo 1, Ohio
Westinghouse Electric Corp., Pittsburgh 30, Pa.

GAGES & MACHINES

Wheel & Axle Aligning • This equipment ranges from the simple devices to measure and correct wheel misalignment to complete safety lane equipment which also incorporates apparatus for checking headlamps and brakes. Still other equipment provides complete front end service apparatus designed to detect and correct front axle, rear housing and wheel alignment troubles on all types of vehicles.

Bean Div. Food Machinery & Chemical Corp., John, Lansing 4, Mich.
Bear Mfg. Co., 21st St. & Fifth Ave., Rock Island, Ill.
Bee-Line Co., Box 569, Davenport, Iowa
Bender Eqpt. Co., J. H., South Gate, Calif.
Bennett-Feragen, Niles, Mich.
Cornwell Quality Tools Co., Mogadore, Ohio
Duby Co., John F., Dorchester 22, Mass.
Hunter Engrg. Co., St. Louis 24, Mo.
Kent-Moore Organization, 28635 Mound Rd., Warren, Mich.
Snap-On Tools Corp., Kenosha, Wis.
Stewart-Warner Corp., Alemite Div., 1826 Diversey Pkway, Chicago, Ill.
Weaver Mfg. Co., Springfield, Ill.
Wilco Products, Inc., Orange, N.J.
Zoerman-Clark Mfg. Co., Jackson, Mich.

GAGES & BALANCERS

Wheel • These machines are designed to detect and correct unbalanced forces in wheels which are the causes of danger, discomfort and premature tire

More manufacturers on page 81

LISTENING FOR UNUSUAL SOUNDS is a basic part of any procedure for locating troubles. Here, "patient" gets thorough check by mechanic with stethoscope. This tool lets you pinpoint source of noise, without dismantling unit.

How 3 ME Award Winning Fleets

This "clinical method of diagnosis" pays off for Cleveland Transit. See how San Diego Transit and Pacific Motor Trucking get PM accuracy on pages 84 and 88.

SEVERAL YEARS BACK, Cleveland Transit, replaced units at a pre-determined mileage. Because they keep a close tab on their operations, they soon realize that under this system, some units were being overhauled unnecessarily. "*As early as 1953,*" says Walter Davis, superintendent of equipment, "*it became apparent that we were not taking advantage of the built-in life of modern bus units, and that too many were worked on needlessly.*"

CTS started developing its own maintenance program on what the shop men call a Clinical Method of Diagnosis. The main objective was to eliminate guesswork by using gages and intruments. Under this plan, the mechanic does not remove a unit until he knows its condition and knows what has to be done to it.

Because the whole plan depended on using instruments correctly, a special training program was

CONDITION OF AIR-FILTER SCREEN is determined by measuring the vacuum between filter unit and blower. High vacuum means plugged filter.

EXHAUST-MANIFOLD TEMPERATURES are taken to determine whether or not each cylinder is carrying its load. A pyrometer is used for this test.

Use Instruments

set up and standards were established for each type of test.

The response of the supervisors and mechanics to this program is just one of the reasons for its success. As a direct result of their interest, many techniques are being developed by the men themselves.

"The methods and procedures used in this type of program are still, and probably always will be, under process of development," says Davis. *"As new, better, and more positive methods of diagnosis are developed, they will be incorporated in the entire program."*

Instrument makers . . .

Continued

wear as well as excessive front-end maintenance. Certain types of this equipment is designed to balance the wheels without removing them from the vehicle while other types require wheel removal. Makers of both types are given in the list here:

Bean Div., John, Food Machinery & Chemical Corp., Lansing 4, Mich.
Bear Mfg. Co., 21st St. & Fifth Ave., Rock Island, Ill.
Bee-Line Co., Box 569, Davenport, Iowa
Bull's Eye Wheel Balancing Co., 233 Mayo Bldg., Tulsa, Okla.
Holmes Co., Ernest, Chattanooga, Tenn.
Hunter Engineering Co., St. Louis 24, Mo.
Lambert, Inc., Dayton, Ohio
Morgan Wheel & Equipment Co., Omaha 2, Neb.
Speedmaster Ltd., 630 E. 10th St., Oakland 4, Calif.
Stephenson Foundry & Mfg. Co., 548 E. Fort St., Detroit 26, Mich.
Stewart-Warner Corp., Alemite Div., 1826 Diversey Pkwy., Chicago, Ill.
Weaver Mfg. Co., Springfield, Ill.

GAGES

Tire Pressure

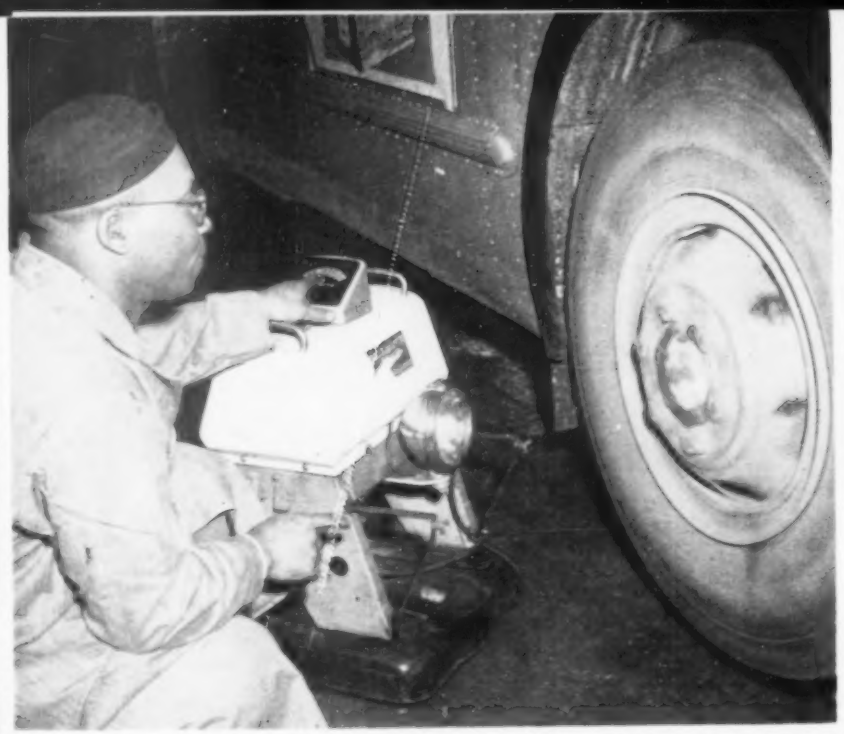
Acme Air Appliance Co., Brooklyn 7, N.Y.
Amseco Inc., 145 S. Monterey, Villa Park, Ill.
Barmotive Products Co., 440 Peralta St., San Leandro, Calif.
Bowes Sealfast Corp., 5902 E. 34th St., Indianapolis, Ind.
Bridgeport Brass Co., Bridgeport 2, Conn.
Diamond-U Products, 8459 Dearborn Ave., South Gate, Calif.
Dill Mfg. Co., 700 E. 82nd St., Cleveland 3, Ohio
Druge Bros. Mfg. Co., Oakland 3, Calif.
G. M. Co. Mfg., Inc., 13-08 43rd Ave., Long Island City, L.I., N.Y.
Goodrich Co., B. F., 500 S. Main St., Akron, Ohio
Schrader's Son, Div. of Scoville Mfg. Co., A., Brooklyn 38, N.Y.
Speaker Corp., J. W., Milwaukee 12, Wis.
U. S. Gage Co., 14 Wall St., New York 5, N.Y.

HYDROMETERS

Battery & Radiator

Beck, Oscar, Glass Blowing Co., Newark 2, N.J.

More manufacturers on page 83

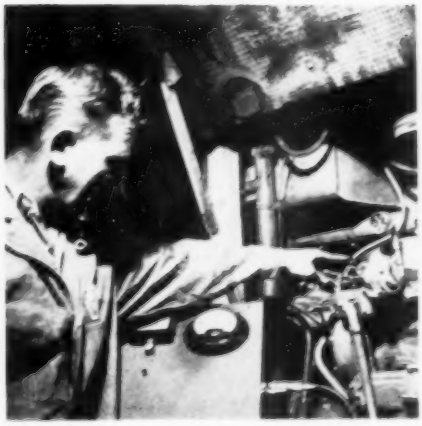


WHEEL BALANCING and adjusting is done electronically at Cleveland Transit System shops after each tire replacement, or when an operator reports front-end troubles such as shimmy or hard steering.

CONVERTER OPERATION is checked by observing the pressure changes that take place during the test.

VOLTAGE REGULATOR is checked here with voltmeter. This instrument has wide use in electrical maintenance.

BRAKE EFFICIENCY is determined by portable brake tester on actual road tests under normal operating conditions. At CTS, they consider a 20% retard reading as satisfactory.



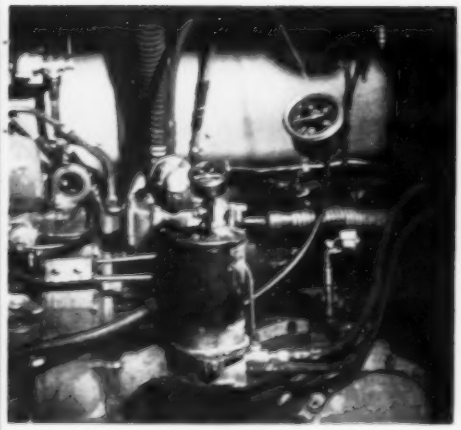
CRANKCASE PRESSURE is checked by connecting gage to dip-stick tube. This follows exhaust system test.

FUEL PRESSURE READINGS taken under varying operating conditions can pinpoint fuel-system troubles.

EXHAUST BACK-PRESSURE is measured with a manometer. High pressure indicates restriction in system.

BRAKE BALANCING is done after all reline jobs and before the coach is released for service.

THERMOSTAT IS TESTED by taking pressure readings at the water manifold as the engine is warmed up.



FUEL FILTER can be checked by taking pressure drop across it. Excessive drop means clogged filter.

TEMPERATURE READINGS can be used to diagnose troubles. Here, cooling system is being checked out.

Instrument makers . . .

Continued

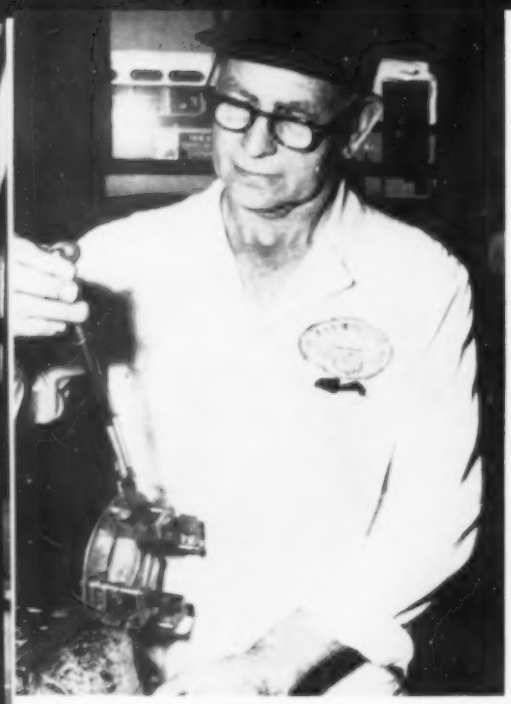
Bishman Mfg. Co., Osseo, Minn.
Edelmann & Co., E. 2332 Logan Blvd., Chicago 47, Ill.
Exide Automotive Div., 246 E. 131st St., Cleveland 1, Ohio
General Scientific Equipment Co., Philadelphia 32, Pa.
Imperial Brass Mfg. Co., 6300 W. Howard St., Chicago 31, Ill.
Kennedy Service Tools Co., Mogadore, Ohio
Murray Corp., Towson 4, Md.
Precision Thermometer & Instrument Co., Philadelphia 30, Pa.
Preferred Electric & Wire Co., 68 33rd St., Brooklyn 32, N.Y.
Sun Electric Corp., Harlem & Avondale, Chicago 31, Ill.
Taylor Instrument Companies, Rochester, 1, N.Y.
Victor Instrument Mfg. Co., 33 W. 60th St., New York 23, N.Y.
Weidenhoff, Inc., Joseph, Algona, Iowa
Weston Electrical Instrument Corp., Newark 5, N.J.
Willard Storage Battery Div., 246 E. 131st St., Cleveland 1, Ohio

INSTRUMENTS

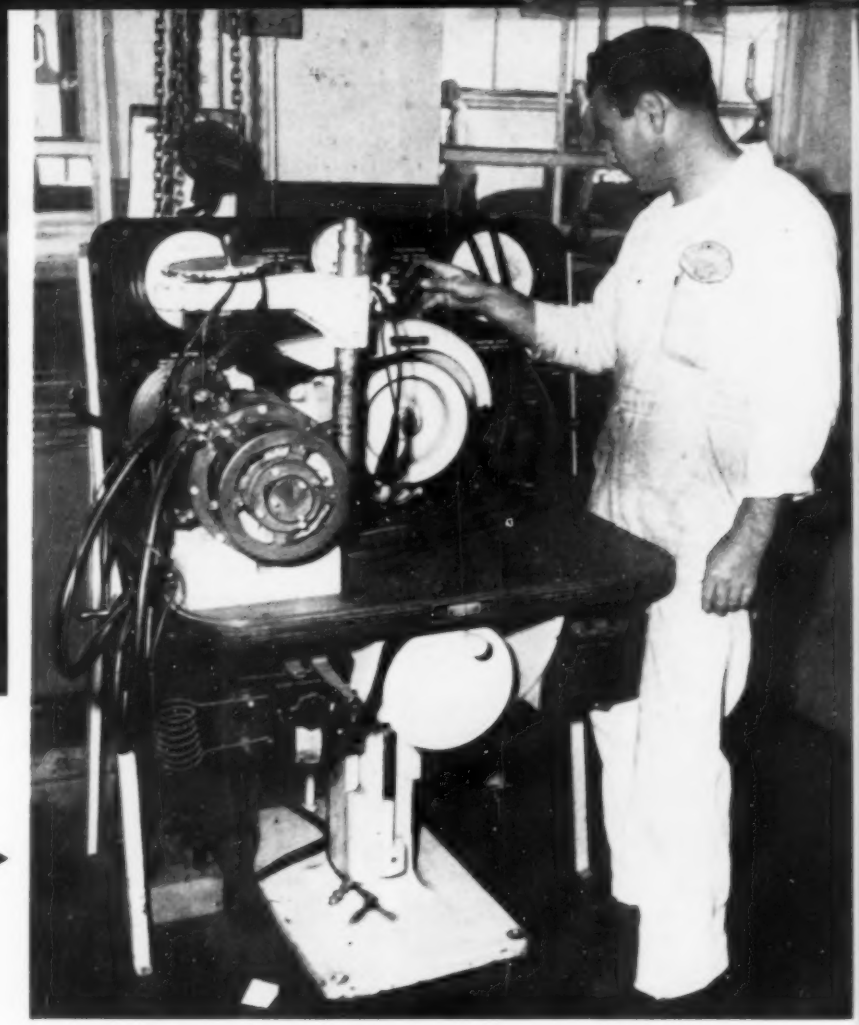
Electrical Testing • This type of equipment ranges from single-purpose instruments designed to check the performance of individual electrical units up to complete packages which contain all the gages and instruments necessary to check all the electrical equipment on a vehicle's starting, lighting and ignition system. Such apparatus includes separate units or combination testing equipment for checking armatures, coils, condensers, generators and alternators, voltage regulators, wiring, switches, etc. A list of makers of electrical testing instruments is given here:

AC Spark Plug Div. of General Motors, Flint 2, Mich.
Allen Electric & Equipment Co., Kalamazoo, Mich.
Arrow Armatures Co., Boston 34, Mass.
Auto-Test, Inc., 600 S. Michigan Ave., Chicago 5, Ill.
Berg-Gibson Mfg. Co., 817 E. 17th St., Kansas City 8, Mo.
Bristol Co., Waterbury 20, Conn.
Dumont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N.J.
Electro Products Co., 445 E. 189th St., New York 58, N.Y.
Exide Automotive Div., 246 E. 131st St., Cleveland 1, Ohio
General Electric Co., Apparatus Sales Div., 1 River Rd., Schenectady 5, N.Y.

More manufacturers on page 85



THE FIRST STEP in this generator-overhaul job is to break down the unit and test brush-holder spring tension with a spring scale. Then . . .



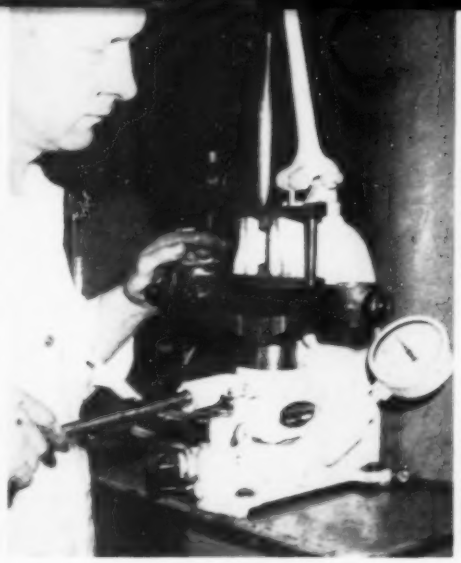
. . . REPAIRED UNIT GETS TEST RUN ▶ after reassembly. Generator is placed in testing machine, and run under simulated driving conditions.

"We Expect Instrumentation to Cut Our Shop Man-Hours by 20%"

"WE BELIEVE we can get these savings because of the time we gain by testing units and making sure they're right before they are put back in the bus," says Farrell Tipton, superintendent of equipment at San Diego Transit. In 1955, SDT spent 27.34 man-hours per 1000 miles for maintenance. Last year, this was down to 23.26 man-hours per 1000 miles. This was due primarily to the effectiveness of instrumentation, says Tipton.

It is difficult to isolate the actual dollar savings due to instrumentation from the over-all maintenancce costs. However, let's look at road calls. As shown on page 76 of this special report, 83 out of the 89 transit bus operators answering the survey, said "yes, road failures are reduced." At SDT, Farrell estimates the chargeable road calls have been reduced by 5%. Beyond a doubt this reduction in road failures, with the resultant dollar savings in reduced man-hours, is due largely to the use of instruments.

It is also interesting to note that, like the men at Cleveland Transit System (see page 80) San Diego's maintenance crew are unanimous in their respect for the importance of accurate testing with good instruments. Here, too, as they have developed their preventive maintenance program around instrumentation, the men came up with instruments of their own making. They have also made numerous modifications on existing devices, as you will see on the following pages.



CONNECTING RODS are checked with gage for twists and bends and realigned accordingly. In the engine, rods are subject to high stresses. Misalignment can mean rapid bearing wear.

VALVE-SPRING TENSION is measured with spring tester. Any loss of tension over a time can greatly affect valve motion. False valve motion will contribute to valve failure.

CRITICAL COMPONENTS ARE INSPECTED for signs of fatigue. Here, a front-wheel spindle is checked. One method uses fluorescent dye which penetrates cracks invisible to the eye, making them easily observable under "black light."

Instrument makers . . .

Continued

Hanson Co., Harvey E., Paw Paw, Mich.
Heyer Industries Inc., Belleville, N.J.
Hoyt Electrical Instrument Works, Cambridge 32, Mass.
International Products & Mfg. Co., 850 N. Ogden, Chicago 22, Ill.
Kennedy Service Tools Co., Mogadore, Ohio
King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio
Martindale Electric Co., 1375 Hird Ave., Cleveland 7, Ohio
Mercury Electric Corp., Kansas City, Mo.
Nieboff & Co., C. E., Chicago 30, Ill.
Schauer Mfg. Corp., Rossmoyne, Ohio
Snap-On Tools Corp., Kenosha, Wis.
Sterling Instrument & Tool Co., 3312 Germantown Ave., Philadelphia
Sun Electric Corp., Harlem & Avondale Ave., Chicago 31, Ill.
Triple-A-Specialty Co., Chicago 12, Ill.
Weidenhoff, Inc., Joseph, Algona, Iowa
Wells Mfg. Corp., 200 W. Division St., Fond du Lac, Wis.
Westinghouse Electric Corp., Pittsburgh 30, Pa.
Willard Storage Battery Div., 246 E. 131st St., Cleveland 1, Ohio
Wilson, Inc., K. R. Arcade, N.Y.
Wood Co., Frank N., Waukesha, Wis.

Engine Testing • Many of the instruments in this category also are included as components of the chassis dynamometer as well as on the portable analyzers used for motor tune-up service. There also are several special instruments in this category. One of these, the oscilloscope, is a fairly new development which provides an actual picture on a television type tube of the actual ignition pattern as it occurs in the combustion chamber. Also in this special category is the pyrometer which is used to detect the degree of heat in engine areas as well as for measuring the amount of heat generated in tires and brakes.

Allen Electric & Equip. Co., 2101 N. Pitcher St., Kalamazoo 13, Mich.
Auto Test, Inc., 600 S. Michigan, Chicago 5, Ill.
Bacharach Industrial Instrument Co., Pittsburgh 8, Pa.
Bendix Products Div., Bendix Aviation Corp., South Bend, Ind.
Dumont Laboratories, Inc., Allen B., 760 Bloomfield Ave., Clifton, N.J.
Electro Products Co., 445 E. 189th St., New York, 58, N.Y.
Gale-Hall Engineering, Inc., North Hampton, N.H.
Herbrand Div., Bingham-Herbrand Corp., Fremont, Ohio

More manufacturers on page 87

"When we can't buy the equipment we need

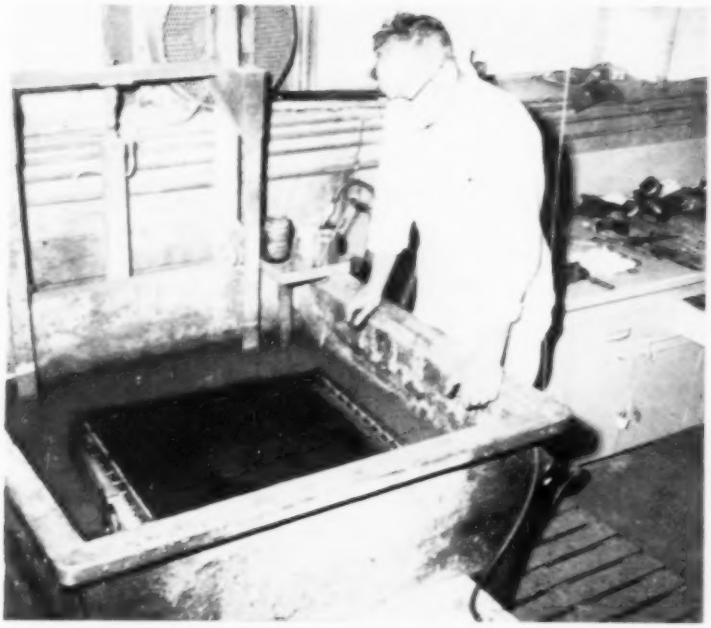
SHOP-MADE STROBOSCOPE is used to check settings of governor. Moving parts of the governor in the test stand are "stopped" by synchronized flashes of stroboscope, and mechanic can make adjustments quickly.

SHOP-MADE LEAK DETECTOR is used to check out the fuel distribution system. Fuel is supplied from tank; 20 psi air pressure quickly shows up leaks.

SHOP-MADE PLUGS for cylinder-block testing are improvised from bolt, and piece of rubber hose sanded to size. Wing nut is turned down to expand plug in hole.

we build it in our shop"

SHOP-MADE TEST BENCH was built for speedometer and governor testing. A variable-speed motor drives units through universals and flexible shafts.



SHOP-MADE RADIATOR TEST TANK features a hydraulically operated platform for raising and lowering the radiator core. Radiator is first given acid bath to remove sludge, then it gets 6-8 psi air pressure test in this tank.

Instrument makers . . .

Continued

Hygrade Products Div., Standard Motor Products Inc., 37-18 Northern Blvd. Long Island City, N.Y.
Illinois Testing Laboratories, Inc., 420 N. La Salle, Chicago, Ill.
Kent-Moore Organization, 1501 S. Jackson St., Jackson, Mich.
Kiene Diesel Accessories, P. O. Box 10352 Pacific Ave., Franklin Park, Ill.
King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio
National Machine & Tool Co., 4077 Page Ave., Jackson, Mich.
Pyrometer Instrument Co., Inc., The Bergenfield, N.J.
Sterling Instrument & Tool Company, 3312 Germantown Ave., Philadelphia, Pa.
Sun Electric Corp., Harlem & Avondale Ave., Chicago 31, Ill.
Weidenhoff, Inc., Joseph, Box 220 Algona, Iowa
Wilson, Inc., K. R. Arcade, N.Y.

Brake Testing • These devices range all the way from portable gages to measure acceleration and deceleration rates in vehicles up to models mounted in the shop floor which will accommodate the largest truck and bus. The latter type is usually used in conjunction with safety lanes. Separate gages are provided to indicate the performance of each wheel brake.

Bean Div., John, Food Machinery & Chemical Corp., Lansing, Mich.
Bar Mfg. Co., Rock Island, Ill.
Bendix Products Div. of Bendix Aviation Corp., South Bend, Ind.
Bennett-Feragen, Inc., Niles, Mich.
Index Electric Co., 8137 E. Compton Blvd., Paramount, Calif.
Mutber Mfg. Co., Boston, Mass.
Permafuse Corp., 675 Main St., Westbury, N.Y.
Tapley Products, 53 Park Place, New York 7, N.Y.
Weaver Mfg. Co., Springfield, Ill.

Headlight Testing • This type equipment is considered an essential part of safety lane apparatus but is so designed as to permit it to be used separately. A number of these devices employ photoelectric cells to measure light output of the headlamps.

Also, now available from most manufacturers is information or special instructions needed for adjusting the new dual headlamps.

Bean Div., John Food Machinery & Chemical Corp., Lansing, Mich.
Bear Mfg. Co., Rock Island, Ill.
Heyer Industries, Inc., Belleville, N.J.
Weaver Mfg. Co., Springfield, Ill.

ENGINE PERFORMANCE IS CHECKED on the chassis dynamometer. Road conditions can be simulated quickly with this machine, and operating condition of important components is read on the instrument panel.

How to Road-Test in Your Shop

Pacific Motor Trucking Company, San Francisco, figures it saves 9% on man-hours per year by testing its vehicles on a chassis dynamometer instead of making actual road tests. "In our PM program, the chassis dynamometer is our most useful single tool," said J. H. Ritter, manager of equipment.

One of the reasons time is saved is that it isn't necessary to look for suitable roads to test the vehicle. In Los Angeles, you might have to drive 15 miles or more to make a test on the road. Also, this instrument makes it possible to find troubles before they turn into major repair jobs. Then too, it's possible to see immediately what effects adjustments have had on engine operation.

PMT decided to use the chassis dynamometer because it can be used to test the engine without removing it from the vehicle. The dynamometer tests the truck as a whole, too, and you can detect trouble in the clutch, rear axle, or drive shaft.

A noise in the drive line or transmission, for instance, might show up only momentarily in a road test. In the dynamometer, the mechanic can maintain the speed and load conditions at which the noise occurs, making it easy to find the source of the trouble. Since the vehicle is in the shop, repairs can be made immediately.

Reprints of this special 16-page report are available at the following prices: 1-49, 35¢; 50-99, 30¢; quantity prices on request. Address inquiries to:

Reprint Editor, Fleet Owner
330 W. 42nd St. New York 36, N. Y.

OUT OUR WAY by J. R. Williams

MORE MILES PER DOLLAR

with Lee Super DeLuxe Highway Nylons—they give you more recaps!

The Lee Super DeLuxe Highway Nylon Truck Tire *costs less per mile*. That's because its premium features result in long original mileage and greater carcass strength for multiple recaps.

The extra-strong, extra-tough nylon cord provides maximum protection against impact bruises, blowouts and moisture damage. Nylon gives you a cooler-running tire, too, because there is less bulk. All cords are treated by Lee's exclusive double-dip Flexlok process which reduces heat, resists the effects of repeated flexing, and makes cord separation from the rubber bond practically impossible.

Every component of the tread design contributes to maximum mileage, better traction and cooler running. Only the best grade of Smoked Sheet natural rubber is used. The flat contour and the deep tread put more rubber on the road to distribute the load and increase tire life. Angular center-tread grooves and the bars between the ribs help prevent little cuts from becoming big cracks.

Lee Super DeLuxe Highway Nylons—tubed or tubeless—are an outstanding tire buy! Write direct, or look for "Lee of Conshohocken" in the Yellow Pages of your Telephone Directory.

The complete Lee line, shown below, includes a tire which will lower *your* operating costs by giving longer life, more recaps. Let us prove it to you.

LEE TIRES

LEE RUBBER & TIRE CORPORATION CONSHOHOCKEN, PA.

Trainee Wallace Young operates fork lift . . . graduates to freight checking

Today's Trainee is Tomorrow's

Plans for expansion must include provision for increased management manpower. Good executives don't grow on trees—but here's a fleet that's growing them in its own back yard via an intensive on-the-job training program.

Management talks focus Young on his goal . . . his progress is checked regularly

Meetings with top officials take trainees out of their daily routine, give them a look at thinking on the management level. At left, VP Hugh Shurtleff lectures on operating rights and certificates. At monthly evaluation conference (right), trainee Young gets the word on his progress from terminal operations superintendent J. D. Liverpool and labor relations supervisor Henry Haugan. What was the report? Progress excellent, trainee ready to move up.

. . . moves up into terminal office

. . . and learns dispatching in general office

Executive at Transcon Lines

In 11 years, Transcon Lines has grown from a single route line to an operation with terminals in such points as Chicago, Memphis, Tulsa and Kansas City. But they've had no problem finding management men to fit the expanded set-up.

Anticipating the expansion as far back as 1950, the company instituted its Administrative Career Training Program to train young men in terminal management. This program is still producing managers for tomorrow's needs.

Here's how it works: Candidates are put through an intensive 22-month on-the-job training program. The planned needs of Transcon determine the number of trainees at any one time. These trainees immediately step into management positions upon completion of the course.

Trainees learn by doing rather than by merely observing. During their training, Transcon's future managers get no special consideration from their immediate supervisors. They receive union scale wages when they work in union jobs, and they're expected to perform their work with the same enthusiasm as their fellow employees. If they bog down, their immediate supervisor has authority to fire them. In testimony to Transcon's recruiting judgment, this hasn't happened yet.

A trainee begins work on the dock (see photos above), gaining the full extent of dock experience. This includes such jobs as operating a fork lift, physically handling freight in loading and unloading operations, counting and checking the loads. He spends from two to four months of his training time on the dock.

This initial phase of the training has been recently de-emphasized, in the only significant modification Transcon has made in the program since its inception. In the beginning, it was felt that a longer period of dock experience would be necessary. Here's how change is explained by the head of the program, industrial relations chief R. S. Stewart McIlvennan:

"We don't expect a man to become an expert freight handler. We just want him to understand the problems and attitudes of those people whom he will one day be supervising."

The next step in the training is a two-month hitch as a dock clerk, where the trainee is responsible for accumulating statistics and measuring the flow of freight.

Next stop is a terminal office where the trainee begins as OS&D clerk, then rotates in the various office functions (eight to ten months).

Central dispatching procedures are next on the list. For this, the trainee is brought into the company's general office in Los Angeles, to spend about four months.

The time spent in each particular phase of learning is flexible, to allow for individual differences in ability and past experience in any of the training operations. In the last step of the program, the

Continued on next page

Training Program . . .

Continued from page 91

trainee is promoted to an "assistant to" position. For example, he may become assistant to the superintendent of pick-up and delivery, or the assistant to the superintendent of office operations. This is strictly a staff job, and the trainee has no real authority over other workers. This phase of his training lasts for about eight months.

A monthly rating . . .

. . . is given to the trainee by his immediate supervisor during the entire program. The trainee himself and a representative from the company's industrial relations department are present when the supervisor gives his evaluation of the trainee on these points: knowledge of job procedures, skill in performance, relationships with other employees, and ability in planning and organizing the daily routine.

Special meetings . . .

. . . in the general office twice a month further augment the program. At these conferences the trainees discuss specific operating procedures with experts from the company's various departments. For example, a sales manager might lecture on the mechanics of getting and keeping new accounts, or an industrial relations representative might instruct on a variety of topics, including how to make corrective action with employee problems, applying and carrying out company policies, claims and their bearing on customer relations, and the general concept of management.

Program head McIlvennan attributes much of the success of keeping men in the program to these monthly meetings. "One of its chief values is that it takes the man out of the day-to-day routine and lets him re-focus on his objective: becoming a member of the management team."

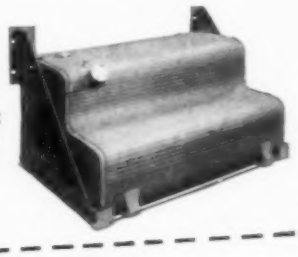
The hardest part . . .

. . . of administering this kind of program, according to McIlvennan, is recruiting candidates. "We have a two-fold selling job. First of all, we're in competition with other big industries which are also interviewing at the universities. Then we have to overcome the misconception that the trucking business is an unstable, gypsy operation, run by a bunch of rowdies. That impression of the trucking industry hasn't been true for a long time, yet it's the one that seems to stick with a lot of people."

McIlvennan feels the program pulls its own weight in terms of cost to the company because the trainees are actually performing their work at the going wage called for by each job.

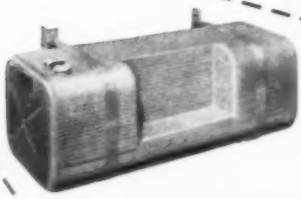
There are now nine course graduates with the company and seven in training.

Utilize that Wasted Space...



FULL STEP TANK
Capacity 30 to 70 Gallons

PAYLOAD TANK
CORNER STEP
Capacity 35 to 64 Gallons



CENTER STEP TANK
Capacity 38 to 70 Gallons

and by doing so increase your payload. The latest series of Snyder Safety Payload Tanks fit below the cab, eliminating the running board and thus utilize wasted space. Snyder's "Balanced Construction" insures lightweight, streamlined appearance and greater strength. All Snyder Safety Tanks are manufactured and tested to conform to Underwriters' Laboratories, Inc. and the Bureau of Motor Carriers of the I.C.C. specifications and carry a Factory Guarantee for one year.

SNYDER SAFETY TANKS

SNYDER TANK CORPORATION

P.O. BOX 14, BUFFALO 5, N. Y. • P.O. BOX 3162, BIRMINGHAM 1, ALA.

Mobil

Provides Widest Range of Protection yet for every type of Drive Axle and Mechanical Transmission

Mobilube GX

. . . Multipurpose-Type Gear Lubricant for Today's Heavier Loads . . . Higher Road Speeds

Mobilube GX—the first commercially available multipurpose-type gear lubricant that protects commercial fleet axles and transmissions under the severest operating conditions—was developed to answer the greater strains imposed by increasing payloads and ever-higher road speeds.

In a series of 100,000-mile fleet highway service and torture tests over rough logging roads, Mobilube GX gave complete protection to gear tooth and bearing surfaces under the toughest service conditions. Such tests made by users and manufacturers are your assurance of Mobilube GX's ability to safeguard fleet axles and transmissions at all times . . . under all kinds of conditions!

Mobil

Correct Lubrication

Another reason why you're Miles Ahead with Mobil

Tune in "TRACKDOWN" every week, CBS-TV. See your local paper for time and station.

SOCONY MOBIL OIL COMPANY, INC., and Affiliates · MAGNOLIA PETROLEUM COMPANY, GENERAL PETROLEUM CORPORATION

Training Program . . .

Continued from page 91

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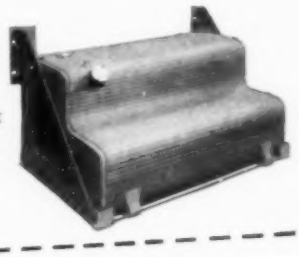
. . . of administering this kind of program, according to McIlvennan, is recruiting candidates. "We have a two-fold selling job. First of all, we're in competition with other big industries which are also interviewing at the universities. Then we have to overcome the misconception that the trucking business is an unstable, gypsy operation, run by a bunch of rowdies. That impression of the trucking industry hasn't been true for a long time, yet it's the one that seems to stick with a lot of people."

McIlvennan feels the program pulls its own weight in terms of cost to the company because the trainees are actually performing their work at the going wage called for by each job.

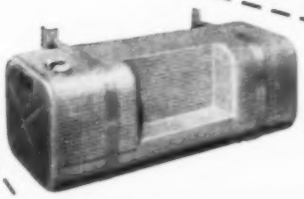
There are now nine course graduates with the company and seven in training.

Utilize that Wasted Space...



FULL STEP TANK
Capacity 30 to 70 Gallons

PAYLOAD TANK
CORNER STEP
Capacity 35 to 64 Gallons



CENTER STEP TANK
Capacity 38 to 70 Gallons

and by doing so increase your payload. The latest series of Snyder Safety Payload Tanks fit below the cab, eliminating the running board and thus utilize wasted space. Snyder's "Balanced Construction" insures lightweight, streamlined appearance and greater strength. All Snyder Safety Tanks are manufactured and tested to conform to Underwriters' Laboratories, Inc. and the Bureau of Motor Carriers of the I.C.C. specifications and carry a Factory Guarantee for one year.

SNYDER SAFETY TANKS

SNYDER TANK CORPORATION

P.O. BOX 14, BUFFALO 5, N. Y. • P.O. BOX 3162, BIRMINGHAM 1, ALA.

Mobil

Provides Widest Range of Protection yet for every type of Drive Axle and Mechanical Transmission

Mobilube GX

. . . Multipurpose-Type Gear Lubricant for Today's Heavier Loads . . . Higher Road Speeds

Mobilube GX—the first commercially available multipurpose-type gear lubricant that protects commercial fleet axles and transmissions under the severest operating conditions—was developed to answer the greater strains imposed by increasing payloads and ever-higher road speeds.

In a series of 100,000-mile fleet highway service and torture tests over rough logging roads, Mobilube GX gave complete protection to gear tooth and bearing surfaces under the toughest service conditions. Such tests made by users and manufacturers are your assurance of Mobilube GX's ability to safeguard fleet axles and transmissions at all times . . . under all kinds of conditions!

Mobil

Correct Lubrication

Another reason why you're Miles Ahead with Mobil

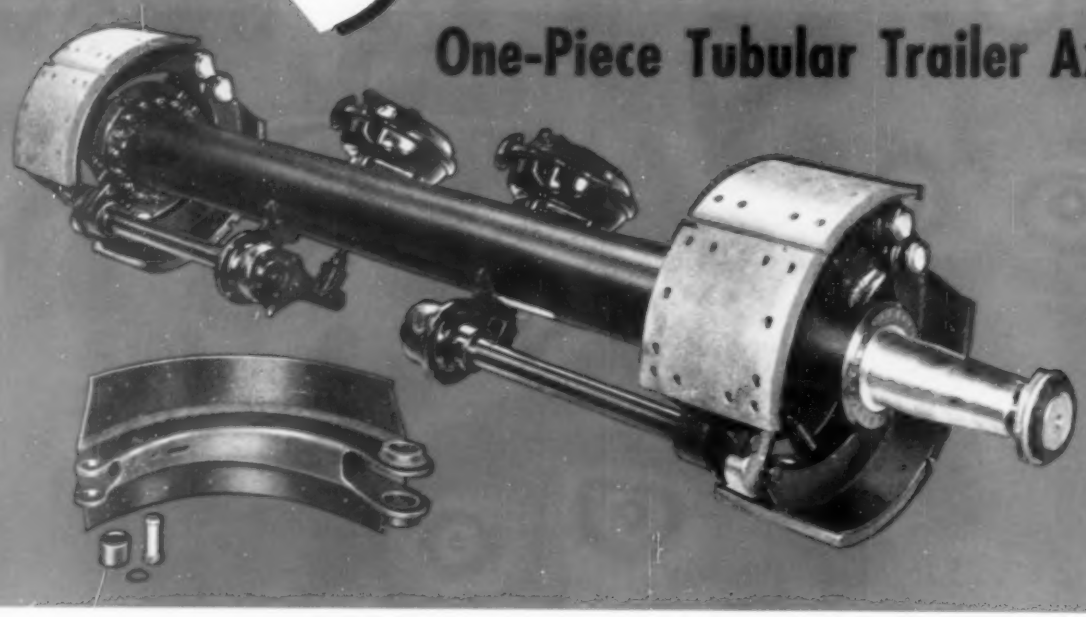
Tune in "TRACKDOWN" every week, CBS-TV. See your local paper for time and station.

SOCONY MOBIL OIL COMPANY, INC., and Affiliates · MAGNOLIA PETROLEUM COMPANY, GENERAL PETROLEUM CORPORATION

LIGHTER, STRONGER, BETTER THAN EVER!

the 1958 SHULER

One-Piece Tubular Trailer Axle



Now Shuler brings you the finest trailer axle *ever* — a new light-weight axle of 18,000 lbs. capacity that retains all the famous Shuler *one-piece* advantages of the past, plus many NEW features.

1. Improved upsetting and forging process insures the strongest and lightest axle center that can be produced.
2. New light-weight fabricated steel brake shoes —ultra light, ultra strong—with tapered block lining riveted on.
3. New light-weight reinforced drums and light-weight forged steel hubs save still more weight.
4. New spring-loaded wheel bearing grease retainer and cam-shaft support grease seals—both of *proven* buna composition material.
5. Spider is bolted on—not welded—to permit replacement in the field.
6. One-piece forged cam-shafts, coined and hardened.
7. Extra-large anchor pins and bushings, and hardened cam rollers and roller shafts, for longer life, better service.

Yes, the 1958 Shuler trailer axles are without doubt the finest, lightest 18,000-lb. axles you can buy, yet *they cost no more.* Write today for new engineering bulletin giving full details. Address:

SHULER AXLE COMPANY, Incorporated, LOUISVILLE, KENTUCKY

Subsidiary of Fuller Manufacturing Company

SALES OFFICES: CHICAGO, DETROIT, PHILADELPHIA, OAKLAND AND TULSA

WEST COAST WAREHOUSE
Oakland, California

SOUTHWEST WAREHOUSE
Fort Worth, Texas

Trailer PM Forms: Here's How You Can Keep Equipment in Top Shape

TRAILER INTERCHANGING faces operators with problems above and beyond the calls of ordinary maintenance. A trailer PM system, to be efficient, must be both simple and, at the same time, suited to the maintenance of constantly changing equipment. The two don't necessarily contradict one another. And, fortunately, the fleetman doesn't need to figure out for himself just what the right formula is for success.

A complete plan for a simple uniform truck-trailer PM system has been drawn up by the Trailer Preventive Maintenance Committee of the Truck-Trailer Manufacturers Assn. Object of the Committee's planning was to come up with an easily adaptable, highly flexible group of forms any operator could put to use. And that's what they've done.

FLEET OWNER recommends that truckers interested in finding a better method of trailer PM consult the TTMA's Manual of Recommended Trailer Preventive Maintenance Practices.

The two FLEET OWNER forms on the next pages are designed only to supplement the work done by the TTMA, not to change it. They may be used in conjunction with the forms in the manual. Since the TTMA forms are designed for actual maintenance procedure, no form was drawn to set down the basic information an operator needs on his equipment. FLEET OWNER designed a form for this purpose. The other form, on p 97, is a simplification. Its object is to cut down the number of forms necessary for inspections.

The TTMA plan depends, basically, on the use of a due-date record panel mounted on the trailer's nose. If a trailer bears one of these panels, any fleet operator can tell at a glance when and what type service is required.

If the information on the panel is changed at every inspection and servicing, no matter how much the trailer moves around it will still receive its regular PM at the proper intervals. The recommended panel is shown at the bottom of this page.

The nose panel shows when the last trip-safety inspection was completed, when the next minor and major inspections are due, and it tells the operator what basis is used for establishing the next due-date for trailers in your fleet. This assures that equipment will be maintained according to your own specifications.

The recommended panel should be 9 in. by 12 in. and made of metal. A good quality paint should be used for the lettering. Inspection and due-dates should be marked with a black china-marking pencil and removed with a cloth dampened in petroleum base solvent. The paint must be resistant to such solvents. Before marking in new dates, make sure the panel is clean and dry.

Three inspections and inspection forms are recommended by the committee. In addition to the inspection checksheets, the manual also contains a trailer PM service follow-up master sheet, a terminal TPM control-record, and a TPM inspection follow-up card. Complete instructions are given for setting up and administering a trailer PM control plan as recommended by the committee.

To get copies of the Manual of Recommended Trailer Preventive Maintenance Practices, fleet owners should write to: Truck-Trailer Manufacturers Assn., Inc., 710 Albee Building, Washington 5, D. C. Single copies may be obtained for 50 cents each; quantities from 10 to 99, for 25 cents each; from 100 to 999, for 15 cents each; and over 1000, for 10 cents each.

Continued on next page

Trailer PM Due Dates

Trip Safety _____
Date Completed

Minor _____
Next due date

Major _____
Next due date

Minor inspection every____days

Major inspection every____months

PM DUE DATE MARKER on nose panel of trailer assures constant maintenance despite interchanging of equipment.

This Form Does Double Duty for Trailer PM

The two-shot inspection form shown to the right is based on the TTMA recommendations for minor and major trailer PM inspections. The TTMA manual provides separate forms for each of these inspections. While it would be possible to print this double-purpose form on only one side of a sheet of paper, it is considerably easier to handle when printed front and back.

The mechanic making the inspection follows the appropriate column to the left and performs the steps next to the squares that have not been blacked out. Only two of the three TTMA-recommended inspections have been included since one is a trip check and, because of its frequency, would not be practical, on a combined form.

The inspection intervals are clearly defined at the top of each column. The periods given on the form shown are examples only, for the purpose of illustrating the method. *They are not* FLEET OWNER *or TTMA recommendations. Naturally, each operator must decide for himself what interval is best for his own equipment.*

Trailer Permanent Record

Company No. assigned _____
Date in service _____

Full trailer ☐ Semitrailer ☐ Tank ☐ Van ☐ Flatbed ☐ Other ☐ Specify _____

Make _____ Model _____ Year _____ Serial No. _____ Gvw _____

Capacity _____ Length — Over-all _____ Width — Over-all _____ Height — Over-all _____

Loading space: L _____ W _____ H _____ Suspension type _____

Tires — Number _____ Size _____ Tubeless ☐ Tube ☐ Brake system — air hydraulic electric _____

Wheel bearings _____ Cup inner _____ Cup outer _____ Cone inner _____ Cone outer _____

5th wheel type _____ Model No. _____ Kingpin _____ Hubometer (make and model) _____

Dolly wheel-bearings cup inner _____ Cup outer _____ Cone inner _____ Cone outer _____

Brake lining No. _____ Brake drum size _____ Hub No. _____ Relay valve type _____

Door key No. _____

Special Equipment — Make and capacity _____

Accessories — Make, type and size _____

Refrigeration unit — make and model _____ Insulation _____ Seals _____

Floor: Aluminum ☐ Wood ☐ Magnesium ☐ Meat rails _____ Turn signals _____

Lights — Auxiliary _____ Other _____

Financial History:

Chassis		$ _____
	Tax	$ _____
Body		$ _____
Painting		$ _____
Accessories		$ _____
	Total Cost	$ _____

Date purchased _____
From _____
New _____ Used _____
Salvage value _____
Sold _____ 19 _____
To _____
Amount Received _____

FLEET OWNER FORM NO. 15

You'll Want to Keep These Facts on Trailers You Buy

Complete specifications should be kept on hand for each of your own trailers for purposes of identification and cost analysis. The form above is not included in the TTMA recommendations but is, nevertheless, valuable for any operator running trailers, whether he is interchanging or not. This form includes more information than you might think necessary and there may be other information you feel should be on it. It can be easily adapted to suit the needs of your own fleet.

Trailer PM Report

Make and model _____ Unit No. _____ Mechanic _____

Full trailer ☐ Semitrailer ☐ Tank ☐ Van ☐ Flatbed ☐ Other ☐ Specify _____

Date _____ Time in _____ Time out _____

Mileage/Date next PM due _____

Use one
(√) OK
(x) Adjustment made
(o) Needs attention

Inspection: 2000 miles or 60 days "A"	Inspection: 4000 miles or 120 days "B"	Detail		Additional Remarks
		1. Lights and reflectors		
		a. Inspect for operation and damaged or missing parts. Clean lights and reflectors.		
		2. Wiring System		
		a. Check for broken or damaged conduit.		
		b. Check for loose or frayed wires.		
		3. Supports or Landing Gear		
		a. Inspect visually for broken or worn parts.		
		4. Underconstruction or Running Gear		
		a. Inspect for broken springs.		
		b. Inspect hangers for excessive wear, looseness or damage.		
		c. Inspect all other parts for excessive wear, looseness or damage.		
		5. Frame		
		a. Inspect subframe – body rails and crossmembers – for damage or cracks.		
		b. Inspect upper 5th wheel and Kingpin for excessive wear or damage.		
		c. Inspect 4-wheeler gear – hitch, drawbar, chains, etc. – for excessive wear or damage.		

FRONT of trailer inspection form contains minimum necessary identification information, spells out instructions.

		6. Sliding Tandem		
		a. Check lock mechanism for proper condition.		
		b. Inspect all parts visually for wear and damage.		
		7. Axles and Brakes		
		a. Drain reservoirs and adjust brakes at the slack adjusters if necessary.		
		b. Check brake operation and inspect for damage and leaks.		
		c. Remove wheels.		
		d. Clean and inspect bearings.		
		e. Clean and inspect wheels and hubs.		
		f. Repack bearings.		
		g. For oil-seal equipped axles, clean and refill with oil.		
		h. Check axle spindles for alignment.		
		i. Tighten all U or spring bolts.		
		j. Inspect all brake parts – lining, drums, etc. – for wear and damage.		
		8. Tires, Wheels and Mud Flaps		
		a. Inflate tires to recommended pressure and check condition.		
		b. Check rim clamps or wheel studs for looseness.		
		c. Check mud flaps.		
		9. Body		
		a. Inspect roof and/or tarpaulins for leaks or damage (light or water test).		
		b. Inspect interior or exterior panels for damage.		
		c. Inspect doors and hardware (including holdbacks) for operation, fit and damage.		
		d. Inspect floors for damage and/or leaks.		
		10. Lubrication		
		a. Lube all high-pressure fittings and fill oil reservoirs. FLEET OWNER FORM NO. 16		

BACK of form continues step-by-step breakdown of procedure. Writing is rarely necessary with the code given.

Outside Adley Express Company's main terminal in New Haven, Connecticut

Adley Express Company, one of the largest motor

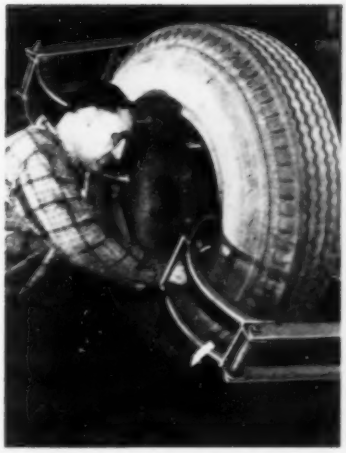
RAYON CORD

Almost 2,000 cities and towns from Cambridge, Mass., to Suffolk, Va., are served by Adley Express Company's 1,000 vehicles. Over 90% ride on RAYON CORD TIRES.

Adley Express finds Rayon Cord Tires pay off in greater mileage—average original mileage is 55,000 with an average of one recap per tire. This adds an average of 35,000 miles to the original mileage.

Adley Express also finds Rayon Cord Tires pay off in less downtime loss. The average is one hour per vehicle per year. A strict daily inspection policy plus Rayon's greater strength helps keep this figure low.

Because Rayon Tires are so reliable, Adley Express saves by having fewer tires on inventory. On the



Inspector checks a Rayon Tire that has already seen much mileage; finds many more miles ahead.

Mr. Ralph Adley, Director of Maintenance, looks over a new shipment of Rayon Tires.

Adley Express, one of the most progressive truckers in the U.S., is always experimenting with new equipment. Here is a unique three-wheel tractor for local delivery. This tractor uses a special 15-foot trailer and a 4-cylinder motor at the rear of the cab. It can turn around in 19 feet! And it is equipped with rayon cord tires.

carriers along the Eastern Seaboard, proves

TIRES PAY OFF!

average a low 3 per cent inventory is kept.

In every way Rayon Cord Tires pay off. As Ralph J. Adley, Secretary of Adley Express, puts it: "Economy and safety are prime factors governing our tire purchases. I feel the Rayon Cord Tires combine these two important specifications, resulting in tire runs of up to 100,000 miles with safest of operating conditions."

Records show that more truckers use RAYON CORD TIRES than any other. They can rely on Rayon because Rayon pays off!

AMERICAN RAYON INSTITUTE, INC.
350 Fifth Avenue, New York 1, N. Y.

Two trucks tow poles . . .

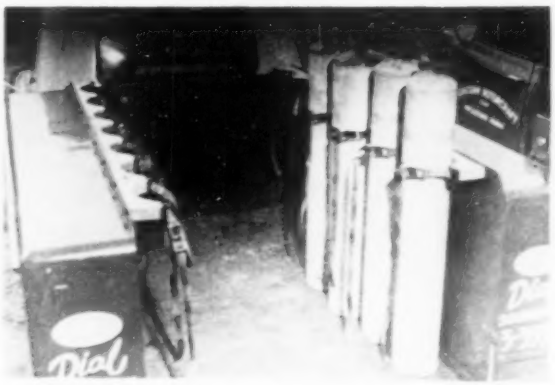
. . . to be used in special river-crossing structures on the Snake River at Lewiston, Washington, in connection with the new south Lewiston 110-13 kv substation. The shipment, which included three 110-ft poles, five 100-ft poles and two 90 ft poles, was mounted on racks of two separate trucks operating in tandem, and was transported over a 110-mile highway between Spokane and Lewiston. The poles were moved downhill on the Lewiston grade, through a series of hairpin turns, on the most critical point of the trip. The trucks and their "extra-long" cargo reached their destination after the state patrol blocked off the road for half an hour at the Lewiston grade.

Flying fire truck . . .

. . . shown above is a new Mack delivered by air to the residents of Yellowknife, a mining and fishing town in the Canadian N. W. territory. Believed to be the first civilian fire truck ever carried to a community by plane, the 13,000-ton vehicle was flown some 200 air miles from Hay River, across Great Slave Lake, to the town. Size became a problem as well as weight. The vehicle, capable of pumping 750 gal. of water per minute, was more than 24 ft long and almost 8 ft high. When such items as the siren, side steps, wheels, fenders, and ladder brackets were removed, the pumper was "squeezed" aboard a Bristol transport plane, and it weathered the journey without a scratch.

"Kitchen on wheels" . . .

. . . is a remodeled 42-passenger intra-city bus, converted by the Arizona Public Service into a traveling showroom. How does it work? The bus rolls up to a power pole or 220-outlet and provides on-the-spot cooking demonstrations. Public Service salesmen put this rolling showcase on the highways as a customer convenience—and as a stimulant to the sale of electrical and natural gas appliances to commercial users. Presently equipped for electrical appliances, the bus can also accommodate gas-operated fixtures. It will be especially useful, designers say, in communities where display facilities are limited—food service personnel will be able to view the demonstration.



Nylon tie-downs . . .

. . . secure these tanks to truck operated by Culligan Soft Water Service, Souderton, Pa. The new tie-downs replace knotted cotton straps, which shrank and tightened in wet weather, and became almost impossible to untie. Equipped with quick-release fasteners, the nylon straps speed up loading and unloading operations. They resist abrasion and last much longer than cotton. And they don't get misplaced, because they're bolted to the special racks which hold the tanks in place in the trucks. Manufactured by Eastern Rotorcraft Corp., Doylestown, Pa., the straps have a new locking mechanism that is said to assure positive closure and quick, certain release.

COMPLETE DEPENDABILITY with LOWER MILEAGE COSTS!

MERCEDES-BENZ
DIESEL ENGINES

Keeping them rolling at the lowest possible cost is of vital importance to the trucking industry . . . And just as important as economy is to management, the power under the hood is to the driver . . . With Mercedes-Benz diesel engines you get economical fuel consumption, simple maintenance, quiet operation and smokeless combustion . . . When the driver needs that added surge of power, he gets it with a Mercedes-Benz diesel . . . The effortless performance of the world famous Mercedes-Benz diesel engine, and its unusually long life, make it the finest engine available for owners who demand the very best.

MODEL OM 326
220 h.p. at 2300 r.p.m.

Other Mercedes-Benz diesels available in 12 and 20 cylinders, Turbo and Supercharged, up to 3000 h.p.

UTICA DIVISION
CURTISS-WRIGHT
CORPORATION • UTICA, MICHIGAN

Easiest of all to install

In this new design the mounting angles are bolted directly to the frame of the truck and it is the most easily installed 5th wheel offered on today's market. The Fontaine Angle Mount 5th Wheel does not require mounting plates, U-bolts, or I-beams. The need for reinforcing beams or frame build-up has been eliminated. Five holes, five bolts in the sides of the truck frame members and the Angle Mount is ready to carry any load you want to put on it.

The shaft is rigidly fixed to the foot brackets—not floating or mounted in rubber. The Fontaine Angle Mount 5th Wheel assembly forms an additional cross member to the truck frame, giving the frame extra, needed strength at this vital point.

The big, 36" diameter wheel is fabricated of heavy gauge steel plate, guaranteed not to crack or break under any trailer load. These all-purpose, heavy-duty 5th wheels are engineered with maximum strength throughout.

The Fontaine Angle Mount 5th Wheel, completely installed, weighs only 295 pounds. With this lighter-weight wheel you can carry extra payload every trip. It is available to fit any truck frame and is shipped complete.

Complete, detailed information is available upon request. Write for your copy of the Fontaine folder covering the Angle Mount. There is no obligation.

Fontaine
NO-SLACK®
5th WHEELS

are sold nationally through truck dealers

Fontaine Truck Equipment Co., Inc.
1232 North 37th Place Birmingham 1, Alabama

Some pick a 6 Some take an 8

BOTH CAN HAVE THOMPSON POSITIVE VALVE ROTATION

Any truck engine being built today can easily be factory-equipped with Thompson-developed "Rotocaps" or "Rotocoils" that provide *positive* rotation of exhaust valves on every stroke.

Thompson rotation on your truck valves reduces operating costs in these ways:

- Burned and stuck valves are eliminated
- Valve seats are wiped clean for better compression sealing
- Down-time on road is reduced
- Valve stem and guide wear is equalized
- Fuel economy and horsepower are improved
- Longer time between valve overhauls
- Horsepower stays at peak longer

Next time you order trucks, specify factory-installed Thompson "Rotocaps" or "Rotocoils". They're readily installed in engines of any design and any size, 6 or 8. To learn more about these *positive*-rotation units for valves, write us for Booklet 3.

Valve Division ***Thompson Products, Inc.***

Dept. FO-258 • 1455 EAST 185th STREET • CLEVELAND 10, OHIO

This High Strength Steel trailer was built by the Marion Metal Products Company, Marion, Ohio. Use of 12-gage **USS Cor-Ten** Steel, instead of 10-gage carbon steel, reduced weight 23%.

High Strength Steel trailers increase payload 50% —stay under legal weight limit

When Saxton Coal Corporation moved their strip mine location, the dump trucks had to travel twice as far to unload at the transfer tipple. To maintain their daily loading schedule they had to build a bigger fleet, or increase the payload of the trucks they were using—without going over the legal weight limit. Part of the route was on state highways.

They decided against more trucks and additional operating expenses, and solved their problem by purchasing High Strength Steel trailers that could be handled by their present tractors. "We increased the payload of each truck more than 50%," says General Manager Darwin C. Youngs, "and we haven't exceeded the legal weight limit."

Payload is increased with High Strength Steel construction because High Strength Steel is much stronger than carbon steel. Trucks and trailers can be made lighter, and *the weight saved goes into the load instead of the carrier.*

High Strength Steel has greater resistance to atmospheric corrosion, impact and wear than structural carbon steel. It needs less maintenance and it lasts much longer.

United States Steel produces three brands of High Strength Steel—Cor-Ten, Man-Ten, and Tri-Ten. Each has its own characteristics that make it ideal for certain applications in trucks and trailers. USS "T-1" Constructional Alloy and USS Stainless Steels are also available. If you want more information about how these steels can help your trucking operations, write United States Steel, 525 William Penn Place, Pittsburgh 30, Pennsylvania. Or, contact the District Office nearest you.

USS HIGH STRENGTH STEELS

USS COR-TEN, MAN-TEN, TRI-TEN

USS, COR-TEN, MAN-TEN, TRI-TEN and "T-1" are registered trademarks of United States Steel

UNITED STATES STEEL

Ready now—at all PureTruck stations

FREE! New PureTruck station directory

1958 edition

Stop soon at any PureTruck station for your free copy, or clip and mail the coupon below.

This handy pocket-size directory shows the exact location and lists all the facilities, with pictures, of each of the 176 PureTruck stations in our 24-state area. *Plus*—three new sections not contained in last year's edition.

1. Complete listing of truck-trailer size and weight regulations for each state.
2. 24-state map showing key truck routes and all PureTruck stations, including wet and dry ice locations.
3. List of 103 truck stops where Pure Credit Exchange is available.

Pure Oil has the Truck Stops

PURE Truck Stop

BE SURE WITH PURE

Dept. FO-28

The Pure Oil Company

35 E. Wacker Drive, Chicago 1, Ill.

Please rush me ____ copies of the new 1958 PureTruck station directory.

Name _____

Address _____

City _____ Zone ____ State _____

Here's How to Select the Right

This month, color-consultant Ketcham shows exactly how to proceed in picking the safest, sales-gettingest color design for your fleet. Here are complete instructions to help you get the best in successful vehicle exteriors.

THERE'S A BASIC FACT to keep in mind when you choose a color scheme: It can do a combined sales-safety job and still be simple, easy to apply, and easy to maintain. Application of colors to vehicles should be a low-cost, long-wearing operation. It's not necessary to get involved with an intricate design that's difficult to apply, uses expensive color blends, or poses difficult problems of cleaning and retouching.

In other words, you can get all the benefits of rolling salesmen and safely visible vehicles without going broke in the process.

Don't buy the brightest paints you can find and have them indiscriminately slapped on your vehicles. As a matter of fact, by the time you finish reading this article you may have discovered your present color design is the best one possible for your fleet.

But if you do decide to investigate the possibility of a change, remember that all the sales and safety value of color may not be realized with the limited color samples at your local paint supplier. And try to remember, too, that the best color plan for your fleet may have nothing to do with your own favorite colors or those preferred by your family.

Before you choose colors, you should know exactly what you want them to do for you . . . based on the nature of your product or service, and on the size and shape of your vehicles. With these two factors in mind, you're in a position to order color samples for final consideration.

Example: Railway Express trucks are done in bright green with bright red bumpers. They are distinctive, attractive, and easy to maintain. However, their green color gives good visibility only in towns. On a long-distance truck, this color would be a safety hazard against the green countryside. The point is that you can get both safety and distinctive sales appeal only if you take all the factors into consideration.

You should use two body colors, with a third lettering color for the most effective design. You won't get as useful a design with only one body color. The two body colors should both take up large areas of the vehicle exterior—then your lettering and emblem or trademark will also stand out to best advantage. When choosing colors for use on large areas of the vehicle body, you should know some general facts about the properties of various colors. Check the following list against your own ideas about colors.

- *Red:* an exciting color but so much over-used that it is hard to identify with any one fleet or product. Red is easy to see in town or country in sunlight, but it is not so visible at night when seen by headlights—unless it is skilfully combined with other colors.
- *Bright orange:* an even more activating color than red. It is a better attention-getter than red when used as a danger-warning color. Pure orange is cheerful, but certain common shades are actually sickening to many people. If you're considering an orange hue, check it with a good number of your employees before deciding.
- *Deep yellow:* a cheerful color but not always appetizing if too dark a shade is used. If you're after a "good-to-eat" effect, lighter yellows are effective, as well as tan, pink, and even a proper shade of blue.
- *Green:* a refreshing color, especially in certain shades. Again, the best way to test is to get reactions from as many people as you can. Green gives a vehicle good visibility in the city, but it can be a poor safety risk against green foliage in the country. When green contains a perceptible amount of blue and is combined with areas of white or silver, the combination gives the highest all-around visibility of any combination under all conditions. This treatment was used in the Ketcham design for Cities Service.
- *Brown, grey, black, olive and maroon:* a group of low visibility colors that can be extremely dangerous on the road. Also, so many second-rate outfits use these colors on second-hand trucks that they are hard to identify with any fleet or prod-

Now's the time to enter Fleet Owner's Color Contest. Complete details on how to enter and what you win on page 108

Color Design for Your Vehicles

Want Extra Help with Your Fleet's Color Planning? Consult Ketcham

Fleet Owner's consulting editor on color, Howard Ketcham, is ready to go to work on your problems. Ketcham has been in business nearly 22 years as advisor to the top outfits in American industry. Currently, five of the nation's six largest industrial firms rely on his specialized experience in making precise color determinations. His work has helped to increase sales, profits and prestige for such diverse projects as prefabricated homes, trucks and chain stores. His work has also taken him into the fields of transit, railroading and boatbuilding, as well as trucking.

H. KETCHAM

Editorially, Howard Ketcham is an editor of *American Fabrics Magazine*, a member of *Printer's Ink* magazine's packaging panel and a monthly columnist for *Television Magazine*. His first article for Fleet Owner on color engineering starts on this page.

YOU CAN USE KETCHAM for color advice about your fleet. Any question of yours that he can handle by himself will be treated as another editorial service to Fleet Owner's readers. For complete color jobs or related problems that require the work of Ketcham's private staff, you're entitled to a preferred fee from the Ketcham advisory firm.

So take advantage of color engineering—it's been proved to be good business. And it could be the payoff secret you need.

uct. Besides being dangerous, they are drab and suggest shoddiness to most people.

- *Blue:* a versatile color because it has many shades that are modern, cooling and dignified. It can be used in many combinations that are unusual and do a good job of attracting attention.
- *Purple:* a depressing color in all its shades and one that's hard to distinguish at a distance.

Get color contrast to make your vehicles really visible for purposes of safety and easy identification of your service or product. Two or more colors cannot be distinguished readily from one another unless they have proper contrast. This contrast can be obtained in the following four ways only: By using . . .

. . . a light value and a dark value of the same color together. Example: dark blue on pale blue.

. . . a weak shade and a strong shade of the same color together. Example: a bright green on a pale grayish-green shade.

. . . a warm color and a cool color together. Example: orange and blue.

. . . a color together with its complementing color—the color that best sets it off. Example: red and green are complementary colors.

Based on these rules, here are some excellent color combinations for use on vehicles: bright red with blue-green or blue, reddish yellow with blue, orange with blue or green, golden yellow with blue or gray, green with tan or gray.

On the other hand, here are some particularly bad combinations I've seen recently on fleet vehicles: red with yellow, sky blue with light green, green with purple, olive with brown.

Be sure lettering contrasts well with colors used on the vehicle's body. Your company name, your slogan, your emblem or trademark—all these have to be clearly visible to do the sales identification job they're meant for. So pay particular attention to the contrast effect they have against body color. Here's how:

- Make the individual letters stand out by outlining them with a narrow border of gold, silver, white or black (depending on color of the lettering and the vehicle body).
- If you use a lettering color on its complementary color, always outline the letters in a lighter value of the background color. For example, if you use red lettering on a green truck panel, outline the red letters in a lighter shade of the background green. If you don't do this, the colors will appear to vibrate and be hard to read.
- If your two main body colors are both dark, outline the letters in a lighter shade of the background and be sure that your lettering color contrasts with the particular background color against which it appears.

If both your background colors are light, border your letters in a darker shade of the background color, or use black, to create a proper

"On fleet vehicles a simple color design is best"

transition from background to lettering.

• If the lettering color is dark and its border is light, the width of the border can be narrow. If both colors (lettering and border) are bright or both dark, use a wide border. The closer the two colors are in value, the wider the lettering border should be.

• Don't be afraid to make your letters big and readable. Don't be satisfied with just a strong color contrast. The letters have to be big to be read before they are out of sight down the road. This is also a good reason for keeping lettering down to a minimum of characters.

• Keep all lettering simple. Big block letters are best. Don't attempt to imitate script or other fancy styles unless it is distinctive and easy to read.

• Distinctive lettering can become an effective trademark. For example, the first letter may be emphasized by making it larger or by having a line extend beyond its regular length. Other good devices are a "T" with a long cross-bar, an overly large dot on an "i" and an exceptionally long letter "K" or "R."

The first or last letter also can be bent back to underline the block of letters or form a rectangle or circle around the letters.

Don't divide vehicle vertically with colors—dividing it into large areas of vertical color arrangements will always make a vehicle look shorter. This may cause another driver to misjudge its length.

A good simple truck color combination may use one color about one third of the way up and a contrasting color from there to the top. The bottom color should usually be the darker or brighter one—this will help reduce accidents, and it will represent less of a maintenance problem.

Example: The new U. S. mail truck features a color scheme of white above (for visibility) and blue below (to help hide dirt and scuffs). The design also has a good "extra"—a bright red border to divide the other two colors.

Put letters and symbols in the right place on the vehicle body. Lettering may be centered across the side. The lettering must not be too low to be seen in traffic, nor too high out of the normal line of vision.

Lettering should balance well with the type of vehicle—no big, heavy lettering on a small truck and no thin, drawn-out lettering on a long trailer, for example.

Never place a block of letters or trademark emblem toward the front of a vehicle—fewer people can see it there, and it throws the vehicle off balance to the eye. So if you use a lettering block and don't center it, put it toward the rear and higher than if it were centered.

Never put an emblem or trademark at the opposite end of the vehicle body from the lettering. If you do, they'll compete for attention.

Fleet Owner's color contest has awards for all types of fleets

HERE'S THE EASY WAY TO ENTER:

1. Submit a 3"x4" four-color transparency showing the full broadside view of your vehicle. Additional views showing front and back of vehicle will make judging easier—all must be 3"x4" size. Four-color photos accepted, but transparencies preferred.

Be sure to have the picture taken from a point as near the vehicle as is possible. However, the entire vehicle must be shown.

2. Submit on your company letterhead, in 200 words or less, the reasons for choosing your color scheme and the ways in which it has benefited your firm.

3. Deadline: August 15, 1958.

HERE'S WHAT WINNERS WILL RECEIVE:

1. A handsome award plaque from FLEET OWNER.

2. National recognition through an announcement of winners in the November, 1958 issue of FLEET OWNER. Four-color reproductions of the winning vehicle pictures will be printed in the November issue if the winning fleets agree to defray the expense of four-color plates in FLEET OWNER.

3. Up to 500 reprints from FLEET OWNER of the award-winning announcement in November's issue. These will include whatever pictures are printed as specified in Item 2. These reprints will be free of charges to winners.

4. Additional awards. More than one winner in each class (see below for category classifications) will be chosen in the event that two or more qualified fleets have had differing problems to overcome.

HERE ARE THE CONTEST CLASSES:

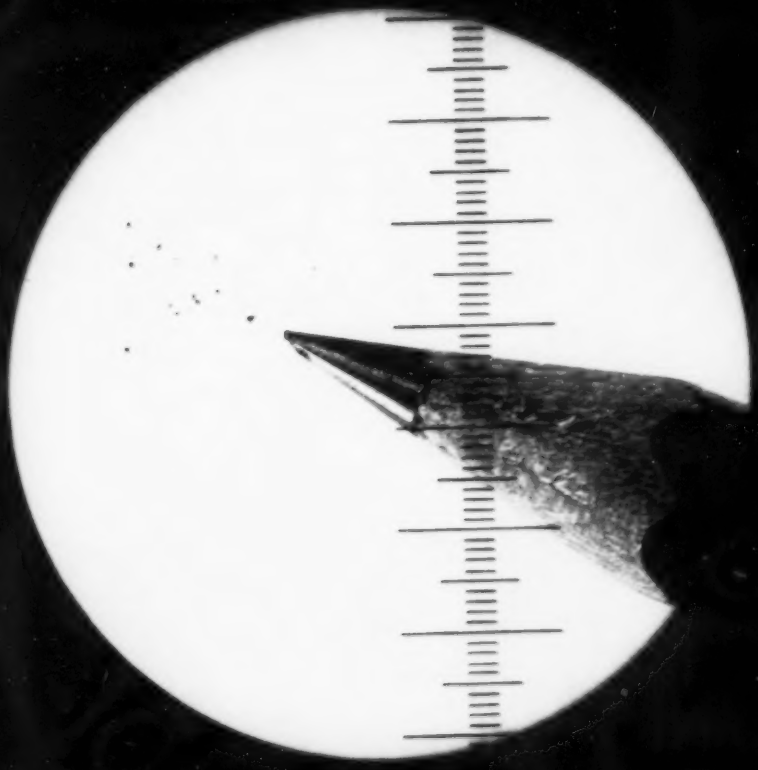
1. TRUCKS. Separate awards for winners in these operations: common carrier, food distribution, government, construction and mining, industrial, petroleum, public utilities, wholesale and retail delivery. Please indicate your type of operation if it is not identified in your letterhead.

2. BUSES. Separate awards for winners in transit and intercity operations.

HERE'S WHERE TO SEND ENTRIES:

Contest Editor, FLEET OWNER
330 West 42 Street, New York, N. Y.

specks the size of a micron



can shorten your engine life

. . . a big fact to help you select filters wisely

Waste and abrasive particles too *small* to see with the naked eye can have a deadly effect on engine performance. That's the problem that led to the development of the MoPar Micronic Oil Filter. It actually eliminates these particles from the oil system, to the incredible size of a micron (.000039 of an inch).

- This means that the MoPar filter catches over ½ more dirt per square inch than ordinary filters.
- It also greatly increases filtering *speed* because the filter surface is over 8 times that of conventional types—571 inches against 69.
- And MoPar filter offers far greater capacity; 3 to 5 times the capacity of a waste-type filter of corresponding size.

Get most efficient engine performance. Get longer engine life. MoPar means *official, authentic* Chrysler Corporation parts and accessories, made to highest precision standards. For quick service, call your MoPar wholesaler salesman or your Plymouth, Dodge, De Soto, Chrysler or Imperial dealer.

MoPar
PARTS & ACCESSORIES

MoPar Division, Chrysler Motors Corporation, Detroit 31, Michigan

ANNOUNCING *Cool-Pack* BY HARRISON

Sensational new low-cost car and truck AIR CONDITIONER

Take the heat out of every haul . . . with Harrison's new *Cool-Pack*. It's a big morale booster and makes driving your cars and trucks a real pleasure. This handsome, low-cost air conditioner fits conveniently under the instrument panel—is compact, fast and efficient. Four adjustable outlets pour refreshing air in any direction at the touch of a finger. With a *Cool-Pack* installed, fatigue never catches up with your drivers and salesmen. They stay alert and neat to make a powerful selling impression for your company. *Cool-Pack* is a product of Harrison, makers of the famous "under the hood" air conditioning systems for all General Motors cars. A cool cargo that will pay its own way every trip. *Cool-Pack* is available now for all 1958 Chevrolet, Pontiac and Buick cars and most Chevrolet trucks.

cool air by the carload

HARRISON

AUTOMOTIVE AIR CONDITIONING

HARRISON RADIATOR DIVISION, GENERAL MOTORS CORPORATION, LOCKPORT, N. Y.

Mud and snow won't stop your trucks if they have non-slip differentials

A sudden storm strikes . . . power lines go down, telephones go dead, and your customers are near panic. Yet, when they need you most, you can't get through to restore service. For your trucks are stalled on a sleet covered highway, or they're up to the axle in a muddy ditch.

You can prevent most of these costly situations — if you equip your light-duty trucks with non-slip differentials, produced by Dana Corporation.

Now a regular production option on many 1958 light trucks, the non-slip differential . . .

- reduces slipping on icy or wet pavement if either rear wheel has traction
- enables your trucks to pull themselves out of sticky mud or loose sand if either rear wheel can grip
- cuts down dangerous swerves resulting from "wheel hop" on rough, bumpy roads because power automatically goes to the wheel that can grip the road. If there's any traction at all, your vehicles will stay on the move—making calls on schedule.

You don't have an emergency every day . . . that's why it's hard to realize how much time you lose because of spinning wheels. That's when the cost of making a service call — or delivering a parcel — can rise by 50%, 100%, even 300%!

Add it up! In just one or two days when driving is difficult you can actually pay for the non-slip differential . . . its price is that low. Have your next trucks factory-equipped with non-slip differentials. For further information write Dana Corporation, Toledo 1, Ohio.

DANA CORPORATION • Toledo 1, Ohio

DANA PRODUCTS Serve Many Fields:

AUTOMOTIVE: Transmissions, Universal Joints, Propeller Shafts, Axles, Powr-Lok Differentials, Torque Converters, Gear Boxes, Power Take-Offs, Power Take-Off Joints, Clutches, Frames, Forgings, Stampings.

INDUSTRIAL VEHICLES AND EQUIPMENT: Transmissions, Universal Joints, Propeller Shafts, Axles, Gear Boxes, Clutches, Forgings, Stampings.

AVIATION: Universal Joints, Propeller Shafts, Axles, Gears, Forgings, Stampings.

RAILROAD: Transmissions, Universal Joints, Propeller Shafts, Generator Drives, Rail Car Drives, Pressed Steel Parts, Traction Motor Drives, Forgings, Stampings.

AGRICULTURE: Universal Joints, Propeller Shafts, Axles, Power Take-Offs, Power Take-Off Joints, Clutches, Forgings, Stampings.

MARINE: Universal Joints, Propeller Shafts, Gear Boxes, Forgings, Stampings.

Many of these products manufactured in Canada by Hayes Steel Products Ltd., Merritton, Ont.

DANA Spicer

8

Yes, Raybestos offers you 8 different friction materials in the right combinations to suit your requirements . . . giving you greater safety, longer block wear, and better drum life at a lower cost per mile . . . no matter what your equipment or where you operate.

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AMERICA'S BIGGEST SELLING FRICTION MATERIAL

RM

RAYBESTOS DIVISION of Raybestos-Manhattan, Inc., BRIDGEPORT, CONN.
RAYBESTOS-MANHATTAN, INC., Brake Lining • Brake Blocks • Brake Fluid • Clutch Facings • Industrial Rubber • Mechanical Packings • Asbestos Textiles • Engineered Plastics • Sintered Metal Products • Rubber Covered Equipment • Laundry Pads and Covers • Abrasive and Diamond Wheels Industrial Adhesives • Bowling Balls

Here's How to Figure What Two-Way Radio Will Cost Your Fleet

TWO-WAY RADIO is not just an interesting electronic toy used by some large companies. Now, vehicle-terminal communications have become an important part of many truck, bus and passenger car fleet operations. Few fleet owners can ignore its presence and many must decide just where electronics fits into their operations.

Fleet managers have been reacting in one of three ways to electronic, now carving a place for itself in the fleet world. There's the ". . . modern nonsense, phooey!" reaction contrasted with the "hot-dog, electronics . . . this will solve all my problems . . . hang the cost" point of view. The latter viewpoint is as foolish as the first is basically unrealistic.

The third and practical stand is taken by the man who asks: "What's in it for me? Will it earn a buck or save a buck? Could I be paying for it already through inefficiency and not know it?"

If you've been thinking about installing a communications system, there are certain things you will want to find out. Each installation is an individual case, with its own problems and potential benefits. Here are some points you might consider in determining your need. For this information FLEET OWNER contacted several fleets and four of the top two-way radio manufacturers—Bendix, General Electric, Motorola and Radio Corp. of America.

Two good information sources covering the two-day radio field are:

1. The manufacturers' representative in your area. He will be glad to survey your situation, tell you just what you need, what advantages there would be for your operation, the probable cost and methods of financing. A reputable company is not going to send a salesman to "snow" you with a hard-sell job and a lot of technical talk. He will discuss the problems with you and help you decide what you need.

2. A special FLEET OWNER report* on two-way communications, giving you a complete rundown on the two-way radio picture. This 10-page report includes a survey which will show you how manufacturers and fleets rate it. The complete report will fill you in on technical aspects, as well as other important features. It also contains information on other forms of electronic communications which might better suit the needs of your operation.

Your first big step is to find out whether you really need two-way radio. Don't forget how easily a luxury can become a necessity. But remember, there are many plus factors which will hold true in almost any setup, regardless of size. These are three big areas to look for payoffs:

- *Reduced costs.* Two-way radio saves time; it reduces "no-load" miles, eliminates driver telephone costs and time. It gives up to 20% more work per vehicle, reduces overtime and retards goldbricking. It allows integration of pickup and delivery and gives the dispatcher a good, over-all picture of your fleet.
- *Improved customer relations.* It allows better scheduling of pick-up and deliveries, helps customers out of the inevitable crises. It frees the customer's telephone and your switchboard and means faster service for everyone, shows you are striving to give fast, modern service.
- *Many intangible benefits.* Two-way radio has a great prestige value, provides excellent public relations opportunities, and has good advertising possibilities. It provides help faster at breakdowns or accidents, gives best contact between dispatcher and driver at all times; and it provides an area-wide traffic picture for better routing.

There can be little doubt that any fleet, no matter what type operation, can get some of the numerous benefits possible with two-way communications. However, there are factors which must be considered to find out how great—in terms of dollars—these benefits will be. These are factors that will affect the cost, when figuring your investment.

To get a system under way you must have a base station, probably a remote control, and as many mobile units as necessary for your particular fleet, including spare units for breakdown periods. You'll need an antenna, with a co-axial cable to connect it to the base station, plus various accessory equipment.

Prices for equipment will vary according to your individual needs. Costs vary with the frequency band used, which depends on the area you want to reach. The power you need, the type of antenna,

Continued on next page

***REPRINTS** *of Fleet Owner's 10-page special report to management on 2-Way Radio are available for 25c a copy. Special rates for over 100 copies on request. Address all inquiries to:*

Reprint Editor, Fleet Owner
330 W. 42nd St., New York 36, N. Y.

2-Way Radio Costs to Consider

Continued from page 113

and the type and amount of cable and accessories will all affect the cost.

Some fleets are able to locate on their own property, but many—particularly in large urban areas—have to rent antenna space. The higher the antenna, the better the range will be. Rental may run anywhere from $20 a month in a small town to $200 a month in a large city. The cable rental depends on antenna location.

These costs can be estimated by your equipment salesman, but don't be surprised if there are unforeseen equipment factors necessary to meet your individual situation.

Don't worry about installation costs. They are usually absorbed in the purchase price or are a small, non-recurring expense. Maintenance can be handled in several different ways.

Although you can arrange for private maintenance, carriers usually contract with the manufacturer for continued preventive maintenance, through local outlets.

Service to equipment — base station, antenna and mobile units—is essential. Nationally, average charges for twenty-four hour service run $20 to $35 a month for base station, and $5 to $15 per month for each mobile unit.

With the constant improvements in equipment, it's a good idea to check with your manufacturer on trade-in values and replacement prospects.

Certain internal changes are bound to be made within your or-

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ELECTRIC

SIZE 8U

5/8" DRIVE

This heavy-duty Impactool gives you more than time and labor savings. It's built to take tough rock-em, sock-em shop treatment and take it for a long time. Plenty of power to spare and plenty of design features that mean easier use. Ask your Ingersoll-Rand jobber to show you why.

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5 SIZES IN ELECTRIC IMPACTOOLS

8 SIZES IN AIR TOOLS

ganization, once two-way radio is introduced. Just how much will depend on the method of dispatching you use, but probably a radio dispatcher or some additional clerical help will be needed to handle phone calls and the like. The dispatcher at the radio set has little time for anything else. This is a cost often overlooked.

A new method of dispatching is going to require new control cards and possibly new office equipment, such as an additional time-punch clock and control panels for dispatching.

Despite the way your office procedures may be rearranged by the addition of electronics, you will find that benefits can be realized from two-way radio.

As one fleet executive put it, "Management is very impressed not only with the results of radio performance but with the use it discovers of mobile radio as a cost-accounting tool." You can learn how much certain operations—such as specific pickup and deliveries—are costing, since time can now be figured more accurately. Previously, it was at best a rough guess.

There's little cost for training involved, but coding systems and office procedures should be introduced, and good radio habits must be instilled in drivers. This training will be only an intangible expense.

You may need to make space for the base station and the dispatching operations. Space requirements vary and the manufacturer's representative can advise you on this.

Inadequate electrical systems pose a big problem for the majority of the fleets using two-way radio. Experience shows it's usually advisable to equip your

Continued on page 117

PISTOL GRIP TOOLS

YOU CAN GET...

AIR

SIZE 310 / ¾" DRIVE

Designed for heavy-duty work, this Impactool is the most powerful ever built for one-hand operation. The Size 310 finds a new friend every time a mechanic uses it.

AIR

SIZE 308 / ⅝" DRIVE

A rugged Impactool designed to handle the tough ones, it will eliminate wasted hours and skinned knuckles on rusted and frozen nuts and bolts on heavy-duty fleet work. You'll agree when you see it operate.

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Trade those delivery PROFIT-EATERS

for real PROFIT-MAKERS

THE *Rugged, Long-Life* DIVCOS!

In business after business, profit-minded delivery truck operators have standardized on DIVCOS because they have learned from experience that DIVCOS give many extra years of trouble-free service. Don't let worn-out, short-life trucks eat up your profits. Replace them *now* with economical, long-life DIVCOS! World-wide sales and service network. Get in touch with your nearest DIVCO dealer or contact . . .

Over 80% of all DIVCOS built are still in use!

DIVCO TRUCK DIVISION • DIVCO-WAYNE CORP., DETROIT 5, MICHIGAN

Two-Way Radio . . .

Continued from page 115

vehicles with heavy-duty batteries and generators or alternators. The costs for this, of course, will vary with each fleet. But it is a point to check.

One of the chief disadvantages of two-way radio communications is that this is not an operation where you can start small and work up. You won't get the full measure of the benefits without a nearly complete system.

The initial costs need not be terrific. Each of the major manufacturers of two-way radio equipment has several purchase plans and leasing programs. Investigation should show the one that best suits your operation.

There are flexible payment plans designed to meet almost any set of circumstances. Leasing plans of various kinds and duration are available—with or without cancellation privileges. These can usually be converted to cash for purchase. Financed time payment plans, extending over periods up to five years are offered. Several companies will install "test units" in fleets under special conditions.

Definite costs are impossible to pin down, but the experience of American Freightways, located in New York City will give you an idea. This company has mobile units installed in 19 trucks and one automobile. The base station is located at the Brooklyn terminal, the antenna in Manhattan. The company's investment is approximately $14,000 for the equipment and complete installation, plus a monthly maintenance charge of about $400.

Generally, the manufacturers agree that an average cost in a normal situation will run from $1.20 to $1.50 per working day per truck over a five-year period. This is an estimate only, but it may serve as a starting point for figuring your possible financial returns.

Many fleets enthusiastically feel that their two-way radio systems have paid for themselves in a few years.

National Society for Crippled Children and Adults
11 So. LaSalle, Chicago 3

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New way to brand your tires

Easy to apply—
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● New *Tattoo* brands your tires permanently against theft with your own name, serial number or other identification—ends costly losses from tire switching. No expensive equipment needed. *Tattoo* goes on like a cold patch—guaranteed to stay for life of tire when properly applied. Already in use on large and small fleets. Mail coupon for samples and low prices.

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Please send free samples and prices of TATTOO Tire Brander.

NAME _____ TITLE _____
COMPANY _____ NO. UNITS _____
STREET _____
CITY _____ STATE _____

Allis-Chalmers Fork Lift Trucks . . .

Allis-Chalmers Fork Lift Trucks with torque converter drive, like this one owned by an eastern cartage company, are particularly suitable where there are ramps to climb. The torque converter drive speeds handling, eliminates costly clutch slipping and engine racing.

stay on the job longer. . .

Reports of Allis-Chalmers Fork Trucks working thousands of hours without lost time are not unusual. Such records are not surprising, either, to those who know the long-life, low maintenance features engineered into these trucks.

Their rugged construction is typified by the all-welded, automotive-type frame — strongest used. Double-reduction axle and heavy-duty, four-pinion differential lengthen service life. Precision-built mast is a welded high-strength channel. Such features as these add up to *more time on the job.*

get back to work faster

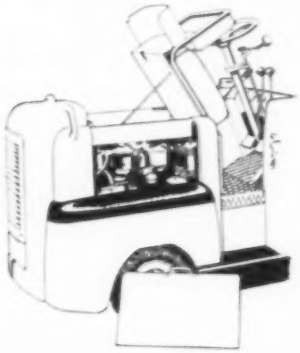
The Allis-Chalmers Fork Lift Truck is a serviceman's dream!

It takes only 22 seconds to strip for service. Lift off two side panels, tip seat forward, remove engine cowl by unscrewing two wing nuts — and everything is right there.

It takes only 22 minutes for two men to disassemble — right down to the bare frame! There are only 20 bolts and nuts to remove.

It takes only 30 minutes to change a clutch. To get at it, you simply remove the floor boards. Clutch plate is replaced without disturbing transmission or axle.

Ask your dealer to show you how Allis-Chalmers Fork Trucks make possible many bonus hours of low-cost operation.



In but 22 seconds, engine, carburetor, oil filler tube, oil filter, fuel pump, battery and ignition system — all are accessible for servicing.

ALLIS-CHALMERS, ENGINE - MATERIAL HANDLING DIVISION, MILWAUKEE 1, WISCONSIN

ALLIS-CHALMERS

BH 60

Fm sintered copper alloy bearings mean real heavy-duty mileage!

There's a reason why fleet maintenance men prefer Federal-Mogul sintered copper alloy replacement bearings . . . two to one! They know from experience that *Fm* sintered bearings set new standards in trouble-free mileage. Whether you use precision undersizes or have to align bore, Federal-Mogul provides a complete line of quality bearings engineered for reconditioning work. And your Federal-Mogul Jobber provides fast service on all of your bearing requirements. Call him today!

BEARING FEDERAL Mogul SERVICE

FEDERAL-MOGUL SERVICE
Division of
Federal-Mogul-Bower Bearings, Inc.

Has this happened to you?

A $15.00 oil seal — ridiculous? Not at all.

Suppose you had heavy equipment in the shop, ready to roll but for a front wheel seal. And suppose that seal wasn't stocked in your shop.

Here is a likely cost pattern:

Cost of seal	$ .55
Parts man's time checking seal, looking up interchange	.35
Issuance of purchase order and handling invoice	1.25
Pickup of seal by service truck	3.00
Equipment idle, non-rev time	6.00
General overhead	4.30
	$15.45*

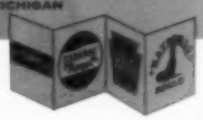
Don't pay $15.00 for an oil seal. Call your National Seal jobber now for details about a shop stock custom tailored for your fleet.

*Actual costs as supplied by a large long-haul motor freight common carrier.

National Seals are original equipment on every make of car, truck, bus and tractor.

NATIONAL OIL SEALS

FEDERAL-MOGUL SERVICE
DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC.
DETROIT 12, MICHIGAN



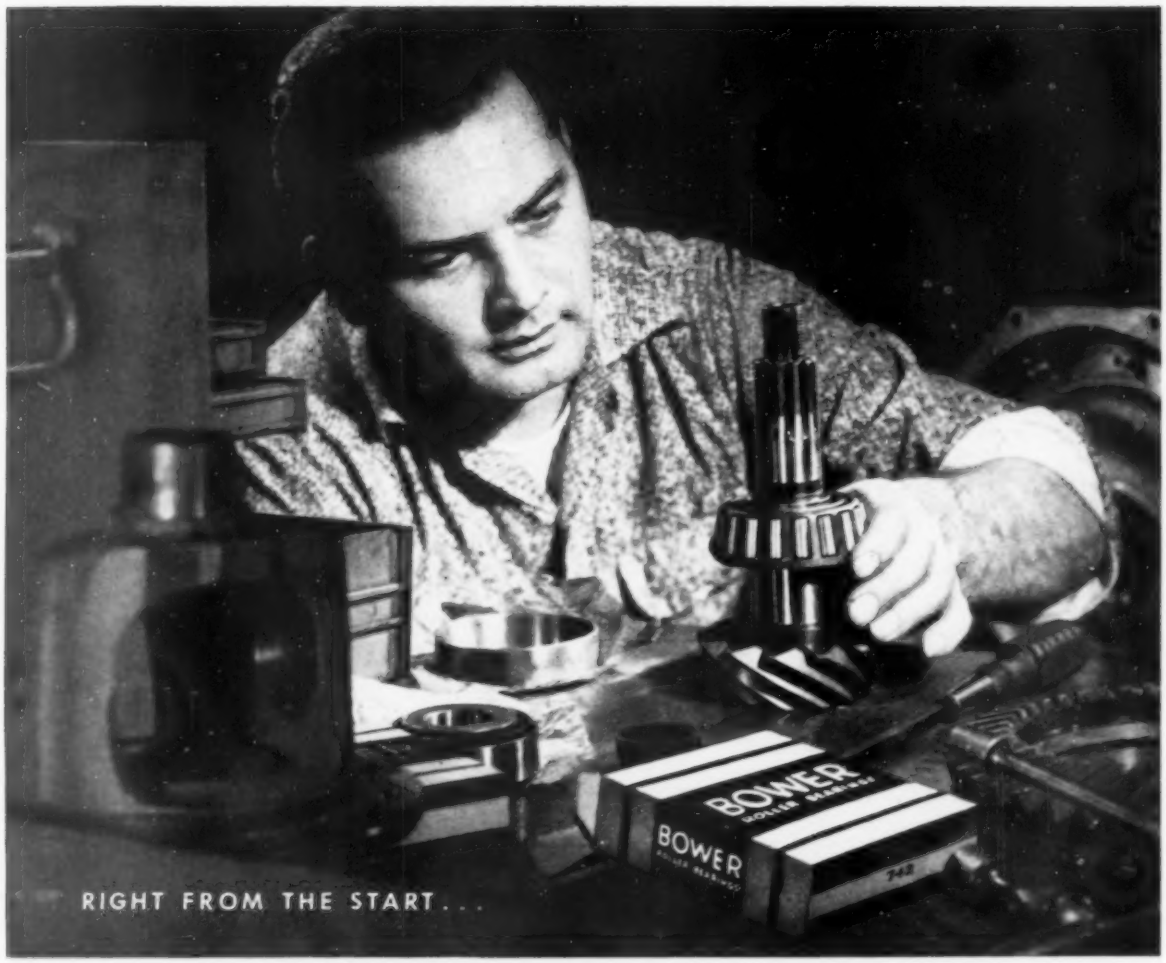
BCA Bearings . . . made for the job!

Designed and produced by a company with 60 years of specialization in ball bearings for the automotive field, BCA offers a complete line of precision ball bearings for generator, clutch, transmission, differential and wheel installations.

Widely used as original equipment, BCA ball bearings fit perfectly . . . are easier to install . . . and give long, trouble-free service. It's a fact that they provide real advantages in the shop and on the highway. Use BCA ball bearings for all your replacement work.

BCA ball bearings

FEDERAL-MOGUL SERVICE
DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC.



Bower Roller Bearings Need No Breaking-In

With Bower exclusive Spher-O-Honed design, roller heads are ground to operating contour that other bearings must acquire through run-in. This means that Bower tapered roller bearings hold adjustment, give smoother performance over a longer life.

In addition, Bower exclusive higher flange design provides large, two-zone contact for roller heads to reduce unit pressure, improve roller alignment, cut down wear and resultant end-play . . . give longer bearing life.

Bower roller bearings are widely used for original equipment. Use them for your replacement work. You will find they save maintenance shop time...and give long, trouble-free service on the highway.

BOWER
roller bearings

FEDERAL-MOGUL SERVICE
DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC.

Transit Fleets Are Seeking Answers . . .

. . . to their nation-wide problems of increased costs and declining number of passengers. Fleets in Chicago, San Francisco, and Virginia are currently looking for financial "outs."

Chicago Transit Authority sees no increase in fares for '58. But a $21-million improvement program and a 5.9% decrease in passengers will leave it in a $325,000 hole. CTA says its loss will turn to profit if the Chicago council decides to assume snow removal costs of $750,000, now paid for by CTA.

A record handout is needed . . .

. . . if San Francisco's Municipal Railway is to keep its head above the hot water it's treading. The proposed subsidy of $6.5-million nearly doubles what the city-owned transit system is getting this year.

Muni officials state that they could balance their fiscal 1958-59 budget only by slashing service 10% and boosting fares one-third. However, this would land them in the same hot water the following year, because of an estimated loss of 9-million passengers.

Two alternatives were offered

. . . the Portsmouth, Virginia, city council by the Portsmouth Transit Co. to solve transit problems. Unless it can raise fares from 17 to 20 cents, it wants to eliminate all service after 9:30 p.m., except on two runs.

Relief was granted previously by a municipal tax cut from 5 to 3%. Increased operating costs and a 14-cent an hour promised wage boost over this year will throw Portsmouth for a $45,000 loss.

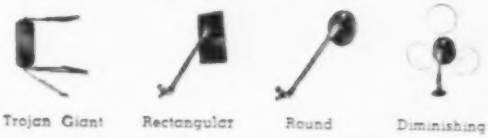
The company ended 1957 with only a 1.8% profit. Portsmouth passengers are now at a level below the 1939 figure. The company feels it will be forced to go out of business next year, unless some relief is given. The proposals met unanimous disapproval at an earlier hearing but Portsmouth Transit succeeded in getting a second chance.

Sparton . . . the COMPLETE TOP QUALITY LINE of AUTOMOTIVE SAFETY EQUIPMENT

HORNS

DIRECTIONAL SIGNALS

TRUCK MIRRORS



RUNNING LIGHTS

SAFETY BELTS

Sparton Karbelts

SPARTON AUTOMOTIVE

DIVISION OF

SPARTON CORPORATION

JACKSON, MICHIGAN

Typical Delco-Remy one-piece ignition contact set for universal adjustment distributors, and its distinctive, moisture-proof foil-wrapped package.

DELCO-REMY LEADS THE FIELD WITH NEW ONE-PIECE, PREADJUSTED IGNITION CONTACT SET FOR THE REVOLUTIONARY EXTERNAL ADJUSTMENT DISTRIBUTOR

Fleet operators—this new, completely assembled, factory-adjusted unit developed for Delco-Remy external adjustment distributors offers you these important advantages:

1. One-piece construction for easier, quicker installation.
2. Fully adjusted, including spring tension and contact alignment.
3. Convenient primary terminal for easy attachment and detachment of leads.
4. Revolutionary new adjusting screw permits easy, accurate adjustment of cam angle *while the engine is running.*
5. New moisture-proof, heat-sealed foil package protects contacts from dirt and oxidation, is easy to stock and identify.

Keep the electrical systems of your Delco-Remy equipped vehicles balanced by using only Delco-Remy original equipment service parts. These new Delco-Remy ignition contact sets, built to highest quality standards by the original equipment manufacturer, are available from your car or truck dealer or the United Motors System.

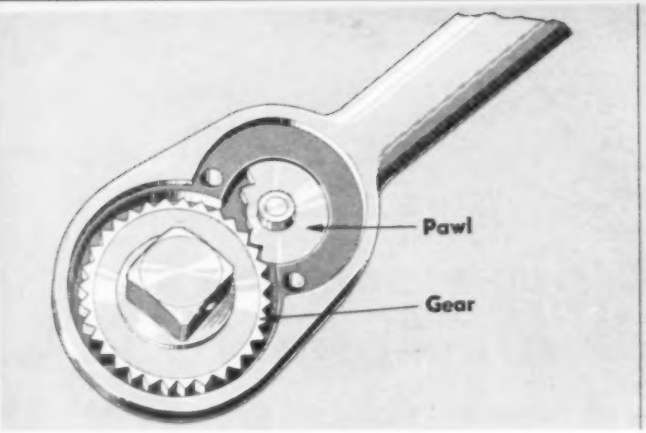
DELCO-REMY • DIVISION OF GENERAL MOTORS • ANDERSON, INDIANA

GM GENERAL MOTORS

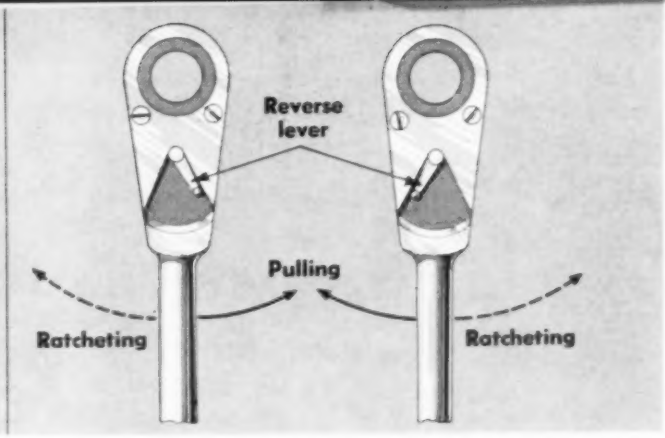
GENERAL MOTORS LEADS THE WAY—STARTING WITH

Delco-Remy

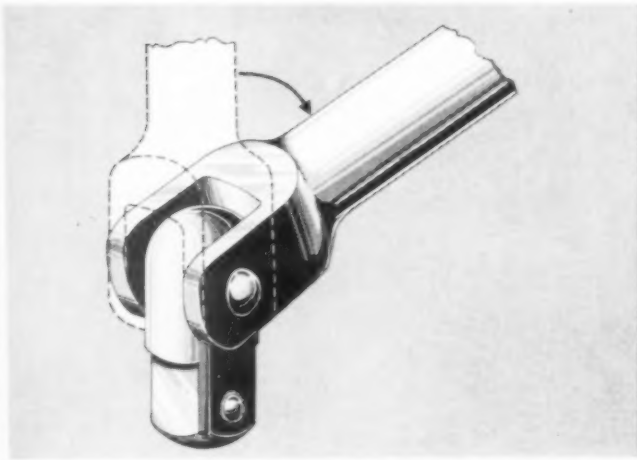
ELECTRICAL SYSTEMS



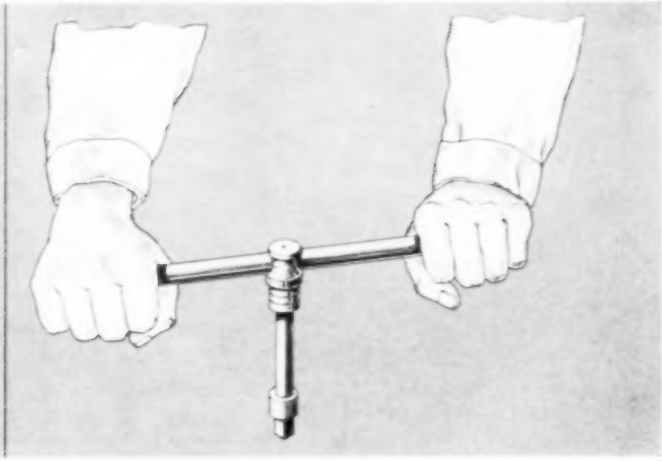
TYPICAL RATCHET MECHANISM consists of a pawl and gear arrangement as shown here. On the return swing, pawl slips over gear teeth and exerts no turning force.



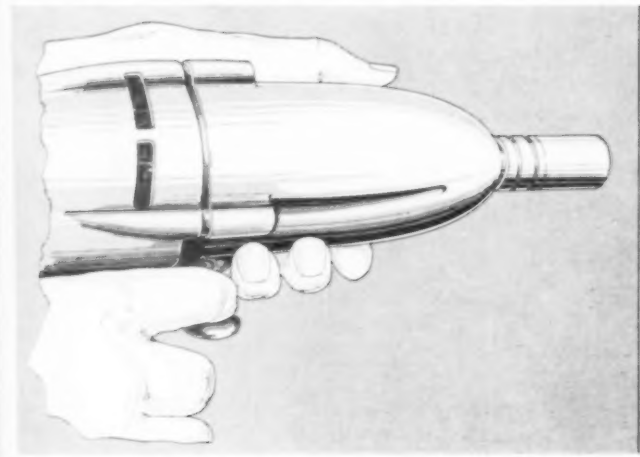
REVERSING SWITCH is simply a device which changes the position of the pawl so that the ratcheting action of the handle can be applied in either direction.



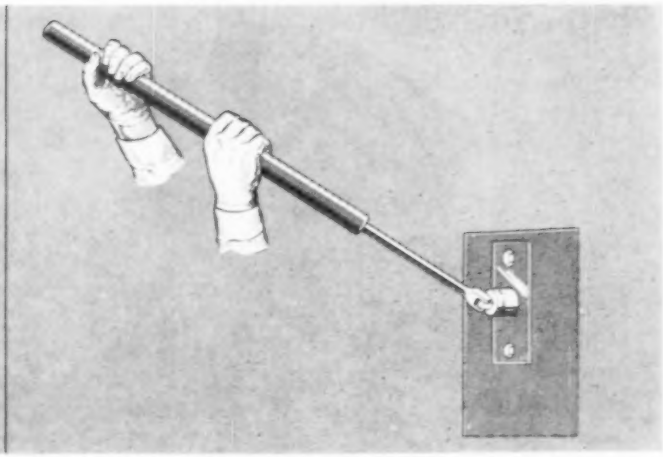
SWINGING HANDLE shown here is hinged on the socket end. This lets you swing the handle at right angles to the socket for maximum leverage.



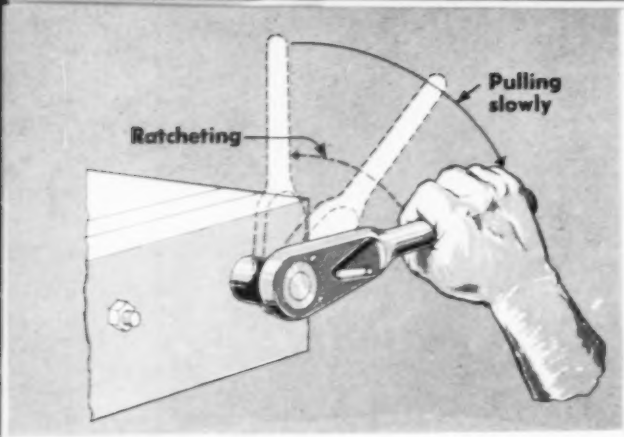
SLIDE BAR can be used as a "T" handle as shown here, or head of handle may be positioned at one end of the bar, and combination used as an "L" handle.



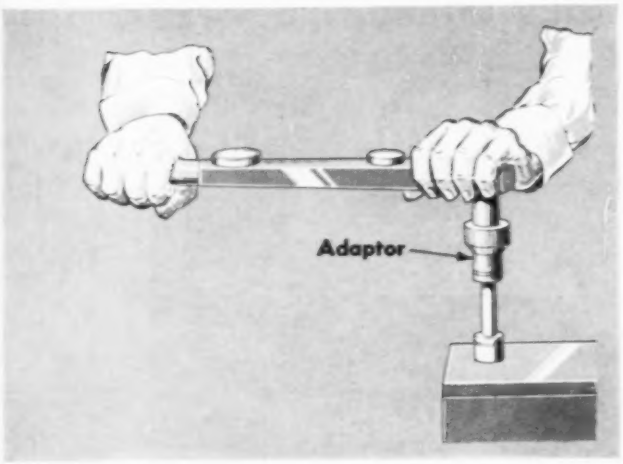
DON'T use standard sockets on impact guns or nut runners. Also, do not use a hammer on socket wrench combinations. They are not intended for "shock treatment."



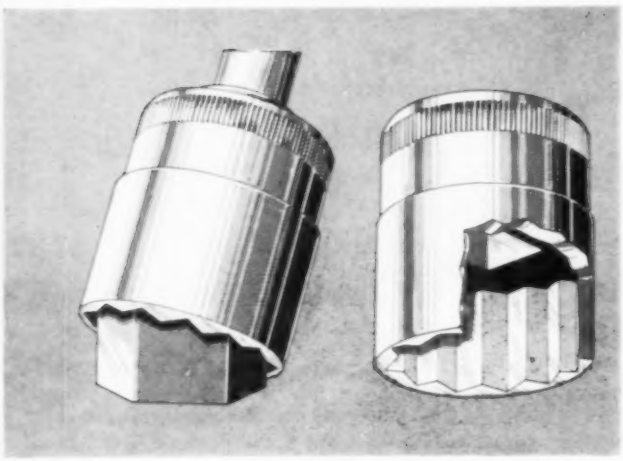
DON'T use a pipe extension on the socket-wrench handle in order to get more leverage—you may strain or break the handle or socket.



RATCHETING HANDLES let you tighten or loosen without lifting the socket off nut because they permit return swing without turning action on socket.



RATCHET ADAPTOR may be used between wrench handle and socket. If an extension is used, be sure to place the adaptor next to the handle.



DON'T apply any turning force unless the socket is set square on the nut. As shown above, sockets can easily be broken if they are cocked on the nut.

Hand Tool Series—10

Here Are Some Tips On How to Use Your Socket Wrenches

In our Hand Tool Series No. 9 (Jan. '58, p 171) we showed you some of the types of sockets available. Now, let's talk about using them. It's simple enough: just select the right socket for the nut, snap it in place on the handle and go to work. Like other tools, though, sockets can be abused so here are some tips on how to use them properly. First of all, keep them clean. They'll always be ready for the next job and their useful life will be increased.

If you use a ratchet handle, you can speed up your work. But don't go too fast. On the ratcheting mechanism shown on the facing page, you'll see that the pawl must slip over the gear teeth on the return swing. When ratcheting, be sure that the pawl seats properly each time. If you don't check this you run the risk of breaking or damaging a tooth on the gear.

Remember that sockets are for hand turning. Never use standard sockets on impact guns or nut runners. Using a pipe extension on the socket wrench handle for more leverage is almost certain to get you in trouble. As tough as these sockets are, you can break them this way.

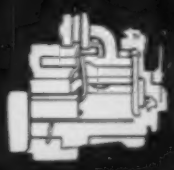
And if any hammering is needed on the job, use the right tool for the job. Don't use a socket wrench as a hammer. When using a slide bar, you can apply the turning force with both hands. This will give you a slow, steady pull on the bar, eliminating shock on the wrench.

Keep two things in mind when using sockets. First, the socket must be square on the nut. Second, the turning force should be applied in a plane at right angles to the axis of the nut. But this doesn't hold true if you're working around a corner, using universals. These are special adaptations for this type of work.

When you're using extensions; there is a tendency for the socket to become cocked on the nut. As the photo on the left shows, you can ruin a socket this way. If you happen to use a ratchet adaptor in combination with an extension handle, always place the adaptor next to the wrench handle as shown. When using a hinged offset handle, swing it at right angles to the socket for maximum leverage. Then, when nut is loose, turn handle up and spin it between your palms.

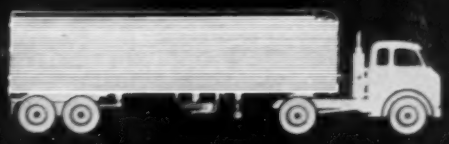
From 1952

*through 1957,**



Cummins Diesels

have powered more new



diesel trucks

than all other makes

combined...

*Based on R. L. Polk Co. percentage breakdown figures from 1952 through October 1957. Also first 10 months 1957 show more than all others combined.

CUMMINS

Each year from 1952 on, Cummins Diesels have consistently led all other makes of diesels in popularity. Consistent with this leadership has also been the increase in sales of the medium and heavy class trucks. The two go hand in hand.

The trend is to diesel, and the top choice is Cummins. Every year thousands of truck operators pick Cummins for these reasons . . .

CUMMINS ENGINE COMPANY, INC., COLUMBUS, INDIANA

52%

Easy to get. 16 truck manufacturers offer economical Cummins power in more than 225 over-the-highway models. **Easy on costs.** You get long engine life, more miles per gallon with low maintenance and repair costs. **Fast, expert service.** More than 300 Cummins outlets throughout United States and Canada are always near at hand. **Complete engine line.** 18 models, from 125 to 335 horsepower, are available for every highway application.

MORE PROFIT

Now, here's one more reason for Cummins leadership → → →

MORE MPG*
MORE MBO**

than any other engine in its class!

CUMMINS

ATTENTION MEDIUM-HEAVY TRUCKERS! Leading truck manufacturers are currently offering the 180 h.p. Cummins NH-180 in lightweight heavy-duty chassis for highway service. Whether you now operate gasoline or diesel, you're going to earn more profit with NH-180 in your favorite tractor!

CHECK THIS LIST: Autocar, models DC-74, DC-75; Brockway, model H257 and other H series; Diamond T, model 923; International (Fort Wayne), models ACF-195D, ACF-205D, AC-225D; International (Emeryville), models RD-410, DCO-405 series, RD-405 series; White, models 9000-TD, 4400-TD, 3400-TD. NH-180 also available in various diesel models of these manufacturers: Four Wheel Drive, Hendrickson, Kenworth, Peterbilt and White-Freightliner.

CUMMINS NH-180

Brake horsepower	180
Governed RPM	2100
Bore and stroke	4⅞" x 6"
No. of cylinders	6
Piston displacement	672
Net weight with standard accessories	2400

NH-180 for the Midwest, East, and South

*MORE MILES PER GALLON!

Less Fuel Per Hour. The NH-180, when delivering maximum horsepower or maximum torque to the wheels, uses less fuel per brake horsepower hour than any other truck engine, diesel or gasoline!

Proven 4-valve Cylinder Heads. Better breathing provides higher power output with low exhaust temperatures. This results in better combustion, cooler operation—the most efficient use of fuel!

Foolproof PT Fuel System. Here's the one system that meters fuel simply and accurately. It has 125-250 fewer parts than other fuel systems and gives low-cost maintenance—high road availability—top economy!

**MORE MILES BETWEEN OVERHAULS!

Long Engine Life. Since components of the NH-180 are less heavily loaded than higher horsepower NH models, you get longer engine life. Low exhaust temperatures are the key to this economy of operation.

Proven NH Performance. You'll get 350,000 or more low-cost miles *before a major overhaul!* This is the kind of performance that has made the NH engine the most specified diesel in American trucking!

New Engine Life After Overhaul. One overhaul doubles the life of the NH-180. Replaceable, wet-type liners and other easily installed parts assure new engine standards and efficient operating life after rebuilds.

Cummins Diesels power more new trucks than all other diesels combined!

For More NH-180 Information, mail this coupon today!

Cummins Engine Company, Inc.
Columbus, Indiana

_____ Send me complete NH-180 specifications.

_____ Have a Cummins Representative call.

Name _____ Position _____

Company _____

Address _____ County _____ State _____

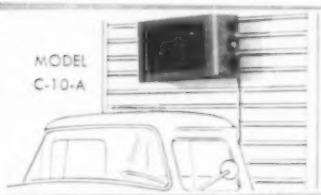
HUNTER

Transport Heating and Refrigeration

TRUCK-POWERED CARGO COOLER

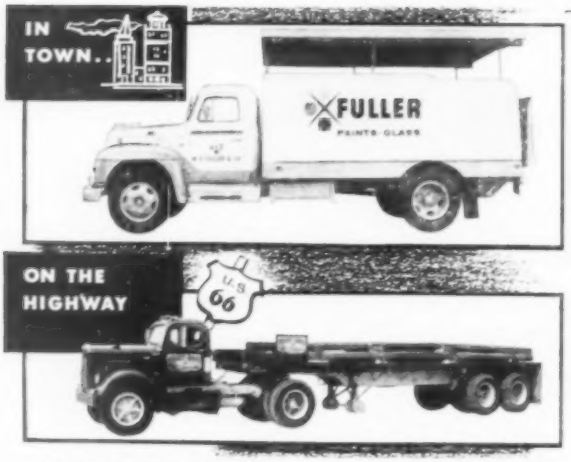
weighs only 215 pounds
maintains 35° to 45° temperatures

MODEL C-10-A



- for insulated bodies up to 18 feet long
- a self-contained, factory-package unit with engine-mounted compressor; unit includes compressor mounting brackets and drive belts for all makes of trucks
- evaporator and condenser fans operate on 12-volt D.C. current from truck generator
- by-pass valve in variable-speed, engine-driven compressor provides capacity control, maintains system in balance
- automatic defrosting — can also be defrosted manually whenever desired
- positive automatic thermostat control
- lightweight — permits bigger payloads
- compact — uses minimum cargo space
- each unit charged and run-in tested at factory, shipped ready for easy installation
- also available (as Model CE-10-A) with AC electric stand-by motor for dock-side or overnight refrigeration

Write for descriptive literature and prices
HUNTER MANUFACTURING COMPANY
30525 AURORA ROAD, SOLON, OHIO



Fleet owners are switching to . . .

MEYERCORD Decal Truck Signs

Investigate the startling advantages of Meyercord Decal Truck Signs! (1) The *cost is a fraction* of hand-painting. Savings are especially marked when halftone illustrations are included. (2) *Lay-up time is minimum.* A multi-color hand-painted sign can garage your truck for days; total installation time for Meyercord Decal Signs is measured in minutes! (3) There is *absolute uniformity* of design and color — vital for the best and most lasting impression of your name and message. Meyercord Decals have been the standard of quality for over 60 years . . . they are built to withstand every extreme of weather and hard usage.

Write for the Meyercord full color brochure "Ads on Wheels". Request on company letterhead, please.

THE MEYERCORD CO.
World's Largest Decalcomania Manufacturers

Dept. R-514
5323 West Lake Street
Chicago 44, Illinois

240 New Buses Delivered in December

BASED ON MONTHLY REPORTS from the manufacturers, this list is as complete as we can make it. But not all manufacturers report regularly, so we can't claim to be 100% complete. You'll find the cumulative total for 1957 at the end. *Note: The two final digits indicate seating capacity.*

Atlantic Greyhound Corp. (W. Va.)
35 GMC—PD-4104—41

Brecksville Road Transit, Inc. (Ohio)
2 GMC—TDH-5105—51

Citizen's Auto Stage Co. (Ariz.)
1 Flxible—228JT1-58-411C-AC—41

Columbus Transit Co. (Ohio)
24 GMC—TDH-5105—51

Duluth-Superior Transit Co. (Minn.)
5 GMC—TDH-5105—51

Fox River Bus Lines (Wisc.)
1 GMC—TDH-4512—45

Horrell Transportation Co. (Pa.)
1 GMC—TDH-4512—45

Knoxville Transit Lines (Tenn.)
4 GMC—TDH-4512—45

Milwaukee & Suburban Transport Corp. (Wisc.)
30 GMC—TDH-5105—51

Southeastern Greyhound Lines (Ky.)
100 GMC—PD-4104—41

South Suburban Safeway Lines, Inc. (Ill.)
2 GMC—TDH-5105—51

Southern Coach Lines, Inc. (Tenn.)

4 Southern—S-41 DHL—41

Syracuse & Oswego Motor Lines, Inc. (N.Y.)
1 Flxible—218WA7-57-37SU—37

MISCELLANEOUS DELIVERIES

Kansas State Teachers College (Kan.)
1 Flxible—218WA1-57-291C—29

State Prison at Folsom (Calif.)
1 Flxible—218WA7-57-36SU—36

FOREIGN DELIVERIES

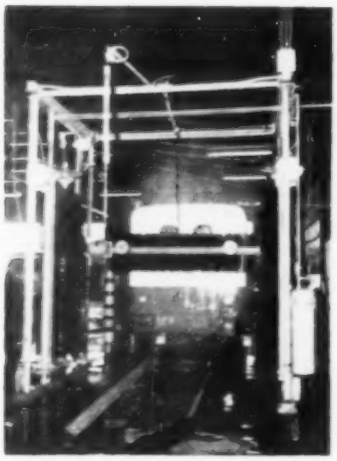
GM Products of Canada, Ltd. (Canada)
28 GMC—TDH-5105—51

Total reported for 1957: 3394

Master FLEET WASHER

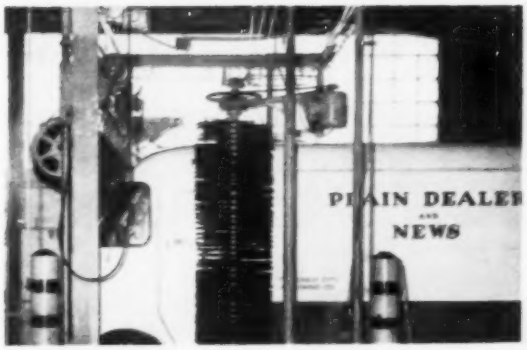
LOW COST

AUTOMATIC BUS AND TRUCK WASHER



WASH TOP AND BACK AUTOMATICALLY

NOW ONE MAN CAN WASH 80 TO 100 UNITS PER DAY



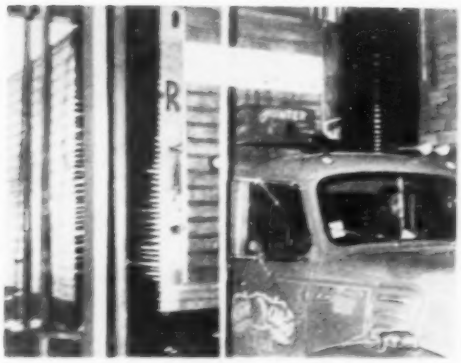
THE LOWEST PRICED FULLY AUTOMATIC TRUCK WASHERS IN THE WORLD

Prices Start

$1995.00

F.O.B. Chicago, Ill.
Subject to Change

WE BUILD AN AUTOMATIC WASHER TAILORED TO YOUR FLEET REGARDLESS OF SIZE



PANEL OR TRAILER

JUST A FEW OF MANY USERS

Gentlemen: We are interested in the following information:

- ☐ A FREE ANALYSIS OF OUR WASHING NEEDS.
- ☐ A QUOTATION.
- ☐ A FREE SURVEY OF OUR FACILITIES.
- ☐ HAVE REPRESENTATIVE CALL TO DISCUSS OUR PURCHASE OF A LOW COST MASTER FLEET WASHER.

Company Name _____

By _____ Title _____

No. and Street _____

City _____ Zone _____ State _____

ACME EQUIPMENT, INC. DEPT. FO-58 ALTOONA, PA.

STOP that HOP!

WHEN YOUR TRAILERS

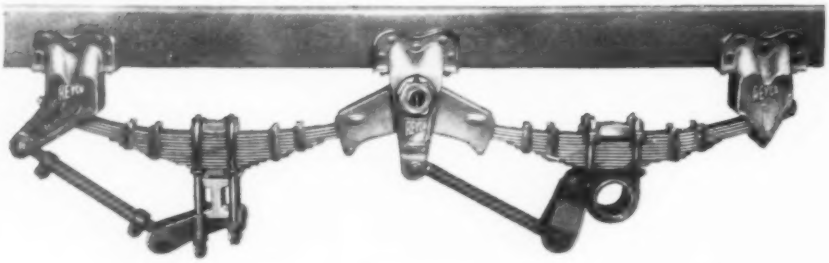
HOP LIKE A KANGAROO

every time you "hit" your brakes
. . . you have real trouble —
you have AXLE HOP trouble!

ELIMINATE AXLE HOP!

INSTALL REYCO "22" Series Tandem with AXLE STABILIZER!

- STOP rising accident losses!
- STOP vehicle and driver fatigue!
- STOP rising maintenance costs!
- STOP faster — STOP with safety!



Now for the first time . . . FULL-LEVERAGE BRAKING TORQUE CONTROL for trailers and tankers! The new Reyco "22" Series Suspension with AXLE STABILIZER (patent pending) represents the greatest and most significant engineering achievement since the introduction of new, lighter-weight trailers and tankers . . . AND IS THE GREATEST TANDEM SAFETY FEATURE ever! *Reduces stopping distance by as much as 50%!*

SALES AND SERVICE NATION-WIDE

T-258—COPYRIGHT 1958, REYNOLDS MFG. CO.

REYCO REYNOLDS MANUFACTURING CO.
SPRINGFIELD MISSOURI

FLEET OWNER

AUTOMOTIVE

Showcase

8 PAGES OF NEW PRODUCTS FOR THE FLEET OPERATOR

FEBRUARY, 1958

This month's feature:

DIAGNOSING ENGINE TROUBLES by listening for sounds that point to source is made easy with this stethoscope. Here, a mechanic listens in as Fleet Owner technical editor Ed Eckert watches. Close-up shows how tuning device operates.

This Stethoscope Tunes in on Engine Trouble

USING SOUND AS A GUIDE in proper operation of equipment and in trouble-shooting is certainly nothing new to fleet men. A tin can or a telephone receiver mounted on the end of a rod were just improvements over using a screwdriver held to the ear. Now, the standard medical stethoscope has been especially adapted for industrial use, and its effectiveneses for maintenance has been greatly increased by making it tuneable.

IT IS NON-ELECTRICAL, and has no moving parts. The sounds picked up by the probe are amplified in the chamber in the handle. This chamber is fitted with an adjusting screw which, when turned, changes the frequency within the cavity. Thus some sounds will be amplified while others are suppressed. By making the proper adjustments with this frequency regulator, the operator can eliminate unwanted sounds and clearly pick up those he wants to hear for a particular purpose.

INTERCHANGEABLE PROBES and horn allow the operator to isolate sounds, knocks, rubs, grinding, taps, vibrations, and leakages of air or gases in bearings, gears, shafts, valves, pistons, rods, feed lines, etc. The instrument may be used on both gas and diesel engines, on compressors, pumps, vacuum systems, piping (to determine leaks), boilers, pressure vessels, gear sets, electronic equipmen. to test for electrical breakdown, switches to check for arcing. It can also be used for checking welds and for cracks in metal.

Because the industrial stethoscope is non-electric and has no diaphragm, it has no fixed frequency of its own, and is claimed by the manufacturer to be capable of picking up sounds of all frequencies—reproducing them at the desired volume.

OTHER USES for the stethoscope include inspection of refrigeration equipment. On a compressor it has been used to detect improper functioning of the feather valve, connecting-rod bearing, and flow of refrigerant through valves and connecting equipment.

For checking electrical connections, the instrument comes with a plastic probe. A small needle mounted on the end of the probe can be put on brushes or on the brush caps of a motor.

The new stethoscope, known as the Airsonic, is manufactured in Belgium, and is distributed in the United States by *M. Paquet & Co, Inc, 17 Battery Place, New York 4, N. Y.*

Body maintenance

ACRYLIC LACQUER, called Duracryl, is used for spot touch-up or complete refinishing of cars with acrylic type finish. Product is said to produce hard, glossy finish that resists, to a high degree, weathering and staining. *Ditzler Color Div, Pittsburgh Plate Glass Co, Detroit 4, Mich.*

METALLIC PAINTS, now available in four colors, resist temperatures up to 1700 deg F without flaking, blistering or burning, maker claims. C-I "Extra High" coating is made of a clear silicone base with a special metallic pigment. Designed for use on condensors, heat lines, engine heads and mufflers. Applied by brush or spray gun. *Chem Industrial Co, 3784 Ridge Rd, Brooklyn 9, Ohio.*

SPRAY AIR-CAP, for spray paint guns, incorporates principle of envelope of air developed around material as it leaves gun. Maker claims painter works better, as the air-cap contains sprayed material in compact pattern and permits working at a greater distance. Available in 10 models, each designed to meet requirements for specific applications and type of material sprayed. *Clean Spray Inc, San Diego, Calif.*

PAINT ADDITIVE, known as Kap-Sil, comes in capsule form for correcting silicone problems. Added to paint, maker says it eliminates fish eyes, reduces orange peeling, and allows new paint to set mirror smooth. *Permalux Co, Aurora, Ill.*

THERMOSETTING RESIN BOND, for glass fiber insulation, is designed to meet extremely severe moisture problems of refrigerated transport. Besides being moisture-resistant, "Transulite Insulation" is lightweight, vibration-resistant, and durable. *L. O. F. Glass Fibers Co, Toledo, Ohio.*

METAL-SURFACE COATING, is colorless, protects bare non-ferrous metals, restores color and gloss of faded paint or enamel films. It is a synthetic, high-gloss finish—not a lacquer—yet it dries to touch in five minutes, and hardens in 30 minutes. Prevents oxidation, pitting, staining and tarnishing of metal. *Magnus Chemical Co, Inc, South Ave, Garwood, N. J.*

PROTECTIVE COMPOUND, known as K2 Silicone Compound, is designed to prolong life of rubber weather stripping; to facilitate smooth operation of window channels; and to preserve fan belts and prevent squeaks on leather seats. *Marson Corp, Revere, Mass.*

ENAMEL UNDERCOAT, called "Speed Sand", is said to have fast-drying, easy sanding, and good filling qualities—with exceptional holdout of lacquer in enamel finish coats. Its leveling properties permit use as a non-sanding primer surfacer. *Ditzler Color Div, Pittsburgh Plate Glass Co, Detroit 4, Mich.*

FAST-DRYING ENGINE ENAMELS in aerosol containers repaint rebuilt engines in a few minutes. Fast-drying action means less chance of dirt sticking to newly painted area. Containers, in 16 or 6-oz sizes, are available in 19 colors. *Krylon Inc, 18 W Airy St, Morristown, Pa.*

PROTECTIVE SEALER for machinery, batteries, and ignition systems. Applied to any metal surface that requires protection, it seals out moisture; resists corrosion and effects of acid solutions; and prevents oxidation. It is also a non-conductor of electricity. Available in aerosol cans, and bulk quantities of 1 to 50 gallons. *B. O. M. Co, 210 S Clinton St, Chicago 6, Ill.*

LIQUID SANDPAPER, called X-Cell-All, prepares previously painted or varnished surfaces for refinishing with enamel, paint or varnish. Wiped on with cloth, it deadens gloss of old film and creates surface tack which helps to bond the new finish securely. Maker says it also reduces runs and sags in the new finish. *X-Cell-All, National Chemical & Mfg Co, 3617 South May St, Chicago 9, Ill.*

Small Pickup Truck

Manufactured by Simca of France, this pickup truck (the Aronde Intendante) is equipped with a 45 hp-Flash service engine which furnishes speeds up to 70 mph. Helical springs, controlled by telescopic double-action shock absorbers with stabilizer, make up the front suspension. In the rear of the pickup truck are variable-rate semi-elliptical springs similarly controlled. Among its features is included a removable tarpaulin, permitting the truck to be adapted to difficult loads. The truck has a loading capacity of 1100 lb. The manufacturer claims there is ample seat space for driver and passenger to ride in comfort. Sells for $1669, Port of Entry, New York. *Monroe B. Scharff & Company, 52 Vanderbilt Ave, New York 17, N. Y.*

Super Panel Truck

The Matador Super Panel Truck, made by Tempo Works of Hamburg, West Germany, and in use in the USA, features 62 cu ft undivided cargo area, 25 miles per gallon economy, front wheel drive, plus full size rear and side doors for easy loading. It has a British 52 bhp Austin A-50 engine, and is higher and wider than comparable standard commercial vehicles, maker claims. Tempo Works also manufactures the Matador Low Loader Pick-up, 10 in. lower to the ground than the average truck, and able to handle all low loading chores. Has large loading area and the front-wheel drive provides good traction in any weather. Features include 25 miles per gallon economy. *Fadex Commercial Corp, 487 Park Ave, New York 2, N. Y.*

Direct-Reading Caliper

This instrument (Model 1404) for "outside" measuring, not only measures bar and sheet stock, and lathe turnings up to 4 in. thick, but also casting and moldings of irregular shape. The caliper is opened by squeezing the handle; a spring closes it on the work. Size is read on a 0-to-4 in. scale. Curved legs reach over obstructions to measure thickness up to 3 in. from a part's edge. Their narrow tips penetrate to the bottom of slots only 1/16 in. wide. *Master Specialty Co, Inc, Minneapolis 26, Minn.*

Tailgate Loader

This electrically-operated tailgate loader is now available to fit all ½, ¾ and 1½-ton pickup truck models. The loader, weighing 290 lb, has a loading capacity of 800 lb. It comes in four different models, which provide a variety of platform widths and lifting heights. Maker claims the unit speeds up entire loading operation because it enables one man to handle heavy loads. Comes as a kit and is easily installed. *Highland Car Co., PO Box 2222, Jackson, Miss.*

Motor Tester

The Sunscope Motor Tester, Model SSMT, combines quick-check advantages of oscilloscope for visual analysis of engine's ignition system with pinpointing of hard-to-find engine troubles. The ac-powered unit provides the automotive repairman with a full range testing laboratory, maker claims. Test stand performs ignition analyzing, coil and condenser testing, distributor dwell and point action, and air fuel ratios. Unit is mounted on portable console-type cabinet. *Sun Electric Corp, Chicago, Ill.*

Tool Cabinet

This "Tool Caddy" measures 35¾ in. high by 28 in. wide by 18 in. deep. The unit weighs 110 lb. It is equipped with steel work table top and extra-large wheels at the back. Standing still, the caddy is steady and level, with wheels off the ground; when it is to be moved, the cabinet is merely tilted back onto its wheels. Features include double electric outlets for portable electric tools, and rubber, ball-bearing wheels. *Simonsen Metal Products Co, 4444 W Chicago Ave, Chicago, Ill.*

Auxiliary-Gap Sparkplug

Maker claims this new sparkplug can curtail oil and carbon-fouling tendencies that result from start-and-stop driving, prolonged idling, and low-temperature operation common to local delivery trucks. The auxiliary-gap sparkplug has an additional gap at top of center electrode. The added gap causes an increase in voltage at firing end of plug, and is said to overcome oil and carbon fouling. Produced in Champion types UD-16, UJ-12, and UJ-6. *Champion Spark Plug Co, Toledo, Ohio.*

Tire-Tread Gage

This precision instrument is designed to measure the tread depth of tires used on trucks and off-the-road equipment. Model 5096 Tread Depth Gage valuable for proper maintenance of the tires, provides accurate means for gaging treads when mating dual tires. Because it measures the remaining life of a tire, it also provides an important safety check as well, maker claims. Gage is graduated in 1/16 in. increments up to 5 inches. *Dill Manufacturing Co, 700 E 82 St, Cleveland, Ohio.*

New literature

OPERATING MANUAL FOR TRUCK DRIVERS, "Operating Tractor-Semitrailers", can be used as a refresher for the professional driver as well as a training manual for beginners. Contains diagrams, illustrations, and covers over-all phases of tractor-semitrailer operation. Special section on jackknifing emphasizes driving errors causing this type of accident. *Mack Trucks, Inc, Sales Development Div, Box 311 Somerville, N. J.*

SAFETY SLOGANS BOOKLET contain more than 1000 slogans to fit any safety situation. Booklet, entitled "Safety Slogans . . . from Everywhere, for Everyone," claims that whatever aspect of accident prevention you want to put across, slogans will help pave way. *National Safety Council, 425 N. Michigan Ave, Chicago 11, Ill.*

TRAILER PM PRACTICES are outlined in a manual planned to meet basic requirements. It is a controlled plan of inspection and maintenance. An integral part of the program is "Trailer Preventive Due Date Record Charts" providing traveling record of date last trip safety inspection was completed; when next major inspections are due; and basis for establishing next due dates. *Berg Mfg & Sales Co, 1712 S Michigan Ave, Chicago 16, Ill.*

PISTON RING READY-REFERENCE FOLDER includes data on ring dimensions, tolerances, nominal wall thicknesses—also recommended piston and cylinder specifications, assembly information, and recommendations as to number of rings at specific psi. *Piston Ring Co., 120 N Broadway Milwaukee 2, Wis.*

AUTOMOBILE FACTS AND FIGURES 1957 edition, gives statistics on traffic fatalities in 1956, special taxes on motor vehicle users, increase in operator's licenses, and the totals of insurance premiums on motor vehicles. *Automobile Mfg Assn, New Center Bldg, Detroit 2, Mich.*

POWERED INDUSTRIAL TRUCKS HANDBOOK comprehensive 92-page booklet includes engineering data and other information for selection and use of industrial trucks. Special sections on methods of analysis, cost accounting, preventive maintenance and safety. Single copy: $5.00. *Industrial Truck Assn, 900 S St, NW, Washington 4 DC.*

GAS VS ELECTRIC INDUSTRIAL TRUCKS illustrated with numerous charts which cover cost of ownership, hourly operating and over-all costs, and 11 points to consider when choosing motive power. *Elwell-Parker Electric Co, 4205 St. Clair Ave., Cleveland 3, Ohio.*

MOTOR CARRIERS REPORT illustrates role of common carrier in distribution of general freight. It gives conclusions as to relationship between minimum charge and larger shipments, revenues received by mileage blocks, average weights of commodities and relationships. *Bureau of Business Research, Commerce Hall University of Washington, Seattle, Washington.*

TECHNICAL INFORMATION DIGEST, is a bi-monthly publication now available to shopmen. Vol. IV, No. 9 features stainless-steel welding. *Eutectic Welding Alloys Corp, 40-40 172 St, Flushing 58, N.Y.*

MOTOR FUEL TAX PAMPHLET, entitled "Why Motor Fuel Taxes Should Be Uniform," analyzes comparative costs and consumption of fuel. Purpose of pamphlet is to present the story for diesel fuel. *Cummins Engine Co, Inc 1000 Fifth St, Columbus, Ind.*

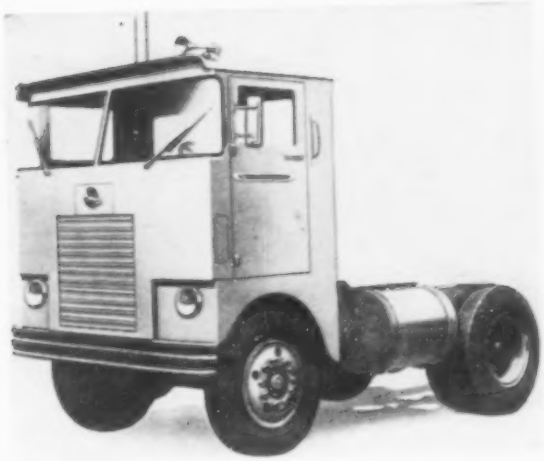
FIRE PROTECTION BOOKLET reviews various services performed by standpipe and inside hose system. Specific guidance is provided for periodic inspection and maintenance of all components in system. *Fire equipment Mfrs Assn, c/o Hanson & Shea, Inc, 1 Gateway Center, Pittsburgh 22, Penn.*

"Job-Planned" Truck Body

This truck body, used for excavation and general construction work, features an air compressor mounted in a special compartment, and it carries other mechanical equipment to construction sites. Among its features is a continuous-duty electrical power plant with 2000-watt capacity, plus an over-size cooling system and over-size generator. It can also be used to transport work crews and their tools. Watertight compartments provide storage for two paving breakers, a jack hammer, a mechanical clay spade, a mechanical tamper and other excavation tools. There are special shelves and bins to hold water-main parts, pipes and equipment. The body shown here is mounted on a standard dual-wheel Dodge chassis. *Reading Body Works, Inc, Reading, Pa.*

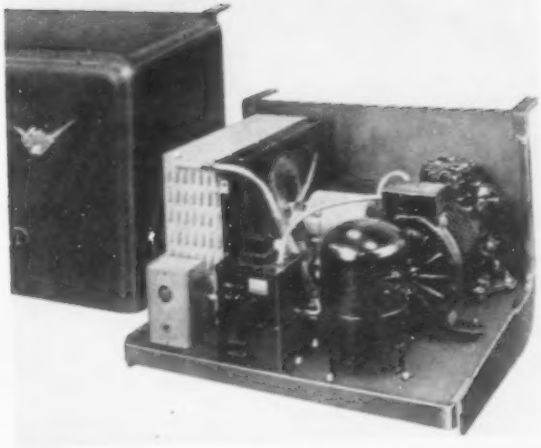
Automatic Car Washer

This automatic car washer (Jetomatic 45) is available for floor installation (Model 45) and overhead installation (Model 045). Both models are fully automatic. Operator flips a switch and in 15 minutes frame travels length of the car through three washing cycles. Water pressure at 125 lb per inch washes off loose dirt during first cycle; pressure-sprayed detergent and water loosen stubborn dirt and grime during second; clear water rinses during the third. No air compressor is required. Both models operate on a single track. They are 22 ft in over-all length, 7¾ ft wide, and require 7-ft headroom. Installation is simple, requires no plumbing or electrical contractor. *Jetomatic, Inc, Wakelee Ave, Ansonia, Conn.*



Lightweight Tractor

This lightweight FWD tractor, series WC-4, with constant four-wheel drive, features a 59-in. standard cab-over-engine. It has 109 to 115-in. wheelbase minimums, and is engineered to pull double bottoms over toughest mountain routes under any snow or other rugged weather conditions, manufacturer claims. Without sleeper, the tractor pulls two 25-ft trailers within 60-ft limit. This new FWD tractor weighs only 11,360 lb with diesel engine, and as low as 10,800 lb with gas engine. Among its weight-saving features are aluminum cab, transfer case, and gas tank. The new tractors are designed with constant drive-power proportioned to both the front and rear axles of the two-axle unit. *Four Wheel Drive Auto Co, Clintonville, Wis.*

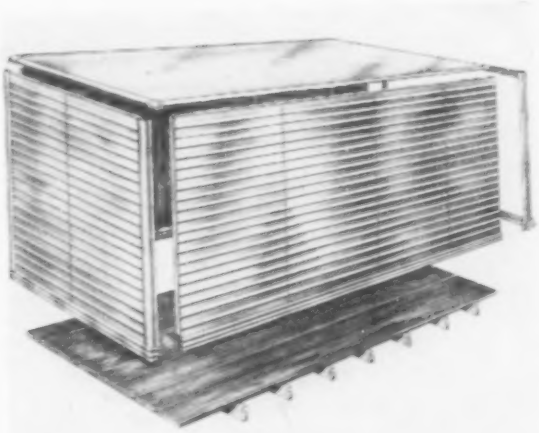


Refrigeration Condensing Unit

Kold-Hold truck condensing unit is a "complete-package" high-side for freezing hold-over plates in a parked truck on "stand-by" or overnight. It is completely covered and ready for mounting on truck chassis rail, thus eliminating the need for building a special compartment. Mounting brackets also make possible the installation of the unit without drilling holes in the chassis member. It has a slide-out base for easy service. A range of five unit models permits selection of right size condensing unit according to truck size, number and size of plates, and other operation factors. Standard models of the condensing unit are ¾, 1, 1½, 2 and 3 hp. All models are available in three-phase or single-phase. *Kold-Hold Div. Trantor Mfg. Inc, Lansing 9, Mich.*

Electronic Wheel Balancer

The Alemite wheel balancer for passenger cars, operates electronically, permits balancing without removing wheel from car. Wheels can be balanced at speeds up to 100 mph. This unit balances the entire assembly—tire, rim, drum and hubcap—in one operation. Electronic wheel balancer holds all parts, including weights in one compact unit. When pointed at the spinning wheel, the Strobe light picks up reference mark on tire, which appears motionless when light flashes. The slightest degree of vibration is detected by the vibration pickup unit. Available for trucks or buses is a model capable of same operations but featuring a 5-hp spinner. *Stewart-Warner Corp, Alemite Div, 1826 Diversey Pkwy, Chicago 14, Ill.*



Truck Body Kit

Five-part "Spacemaster" truck body kit, is constructed of Alcoa aluminum. Standard stock sizes range from 12 to 20 ft in length, in 2-ft increments. The new wide aluminum sheet, which is used as a one-piece roof on truck or trailor bodies, eliminates need for rivets on cross ribs. Only rivets on roof are on sides attached to a special form extrusion. Maker claims this feature eliminates leaks caused by rivets pulling loose. This same construction is applied to bottom of body. Maker says castings were made of the corners to seal off openings in corner posts. Unit is said to provide maximum payload capacity together with minimum weight to meet maximum highway limitations. *Kingham Trailer Co, Louisville, Ky.*

Shop equipment

AC POWER TIMING LIGHT (Model HT-670) with beam for pinpointing timing mark is supplied by long-burning xenon stroboscopic lamp. Light requires only two connections and a 110-volt power source. It will check 6, 12, 24, and 48-volt circuits and magneto. Comes in shock-proof case. *Herbrand Div, Bingham-Herbrand Corp, Fremont, Ohio.*

TRUCK TRANSMISSION JACK. One-ton capacity truck transmission jack, No. 49, is furnished complete with universal lifting head. Featured is a self-adjusting cradle which holds transmission close to its center of gravity. Two adapter heads, one for Allison Torqmatic transmissions, and other for truck differentials, are included. Micro-accurate tilting adjustment allows lifting head to tilt 10 deg forward, backward and to either side. *Walker Mfg, Co, Racine, Wisc.*

WHEEL BALANCING CONES, are designed to fit contour of bearing races on cars having wheels equipped with ball bearings. Manufacturer says this is particularly important on late model cars with smaller wheel bearings because a greater degree of accuracy can be maintained. Also works on roller bearing wheels. *Bear Mfg Co, Rock Island, Ill.*

GENERATOR-REGULATOR TEST BENCH (Model 20-14) tests 6 and 12-volt auto and light truck generators, with or without matching regulators. Also tests double contact as well as current-voltage type regulators. Features forced-air cooling, quick-acting generator vise, and simplified test-head lead hookup. *Allen Electric and Equipment Co, Kalamazoo, Mich.*

SERVICE STAND (No. 1009) designed to handle heavy engines and transmissions including the Transmatic. Stand features self-locking geared head, allowing up to 360-deg rotation of any engine or transmission, plus "outboard support" for fastening engine or transmission at two points for further safety. *Automotive Div, K. R. Wilson Inc, Arcade, N. Y.*

MAGNETIC HOLDERS for variety of uses in the shop. Magnetic base attaches to iron or steel surfaces, eliminates drilling of holes. Available in two types—with sturdy bolt and wing nut; or with ball and socket action and double adjusting arms for holding mist nozzles or other objects at any angle. *Trico Fuse Mfg Co, 2948 N 5th St, Milwaukee 12, Wisc.*

ALL-PURPOSE CLAMP. New deep-throat 10-inch clamp is latest addition to Kant-Twist line. It's specially suited for heavy-duty work because side plates are wider than most comparable models. *Saxton Mfg Co, 1517 N Potrero Ave, El Monte, Calif.*

WELDING ACCESSORY is designed for use with Aircospot Gun in arc-spot welding of light-gage metals. New Crater Eliminator Control automatically regulates cooling rate of Aircospot welds. With this unit, welds cool more slowly, thus helping to minimize weld cracking in certain metals. *Air Reduction Sales Co, 150 E 42 St, New York 17, N. Y.*

GAS-WELDING REGULATORS. Improved line of "Jet-Flow" oxygen and acetylene regulators contain only four working parts. Said to be "proof tested" in factory under actual operating pressures to assure perfect operation. Regulators have been approved by Underwriters' Laboratories. *Marquette Mfg Co, Minneapolis, Minn.*

EMERGENCY REPAIR KIT, containing Plastic Steel, (80% steel, 20% plastic), can be formed into any shape and hardens into a strong, rigid metallic piece. Maker claims no heat or pressure is required, and it does not depend on evaporation for hardening; will harden under water. Price, $3.25. *Devcon Corp, 1220 Endicott St, Danvers, Mass.*

ENGINE REPAIR STAND, for heavier, wider 1958 auto engine. Provides 360-deg rotation for complete engine accessibility and incorporates floor locking device. Also has "outboard support" arm. *Manzel, 315 Babcock St, Buffalo 10, N. Y.*

Cleaning Gun

This cleaning device, using compressed air, has valve arrangement allowing user to switch from a solution application (cleaning or sterilizing solution) to pressure rinse and to air dry if desired. A quarter-inch hose aspirates the exact amount of solution required and the gun applies it to the target surface. Weighing less than 3 lb, the instrument requires 6 to 8 cu ft of air per minute at 100 to 125 psi. Will clean machinery and areas which are hard to get at, maker claims and only one hand is needed to handle unit. Used not only for cleaning, but also to apply insecticides and other liquids of similar viscosity. Eliminates time-wasting hand scrubbing, and consumption of materials is reduced. *Kemax Corp, Box 101, North Chicago, Ill.*

Heavy-Duty Wrecker

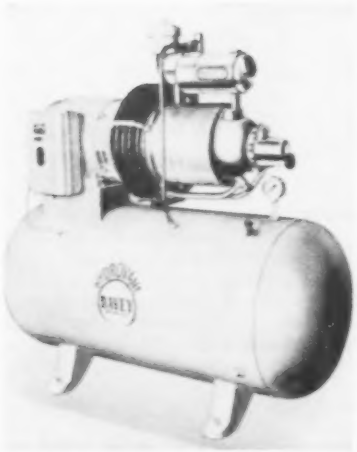
This heavy duty power wrecker (Model 34-10EXB) is especially designed for the recovery of semi-trailers and heavy trucks. It is mounted on any 2½ to 4-ton cab and chassis with heavy-duty springs, and two-speed axle. Specially designed telescopic boom can be extended from 122 in. to 182 in. in length with 0 to 80-deg vertical lift controlled by separate winch and heavy duty wrecker body. Maker claims this facilitates recovery of the largest trailer or truck without additional damage to the body. Standard specifications are: winch capacity—37½ tons; cable—300 ft long by ⅝ in. dia; full rear control. Specifications may be varied to suit conditions. *Collins & Associates, 4902 Heuwerth Ave, Cincinnati 38, Ohio.*

Mixer-Master

Mixer-Master is offered in two models, model M-450, rated at a 4½-5½ yard payload, and model M-625, rated at a 6-7 yard payload. Both models are tandem-drive and are available for mixers with conventional separate engine drive, or with new front engine power take-off drive. Constructed with all-welded structural steel frame, the Mixer-Master is designed for the rough use of on-and-off highway construction or hauling jobs. The units have heavy front axles, with a 15,000-lb capacity, and rubber-mounted and rubber-bushed bogies said to eliminate lubrication and wear points. Hydraulic power steering, Fuller 5A43 5-speed transmission, with Fuller 2A62 auxiliary transmission are standard equipment. *Crane Carrier Corp, PO Box 5008, Tulsa, Okla.*

Dump-Master

Dump-Master LCM-45 is constructed with an all-structural steel frame, which manufacturer claims will outlast conventional truck frames a minimum of two to one. This LCM-45 is fitted with an 8-cubic yard rock body, which has a cylinder hydraulic hoist complete with power take-off. The main transmission is a 5-speed Fuller #5A62. The short CA dimension allows greater load to be applied to the front axle, which has a capacity of 11,000 lb, thus improving weight distribution and allowing more payload within the bridge-formula legal load limits of the various states. An International Harvester RD-501 engine is used to power the unit. It is a tandem-drive, and available for mixers with separate engine drive. *Crane Carrier Corp, Tulsa, Okla.*

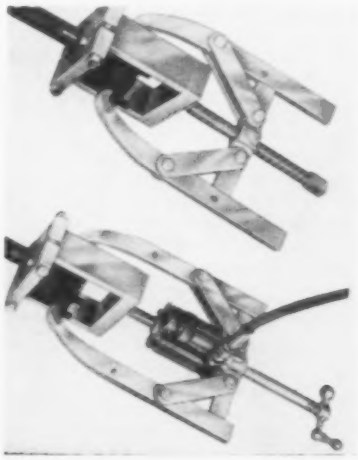


Tank-Mounted Compressor

Davey Hydrovane tank-mounted Rotary units operate at 100 and 200 psi. They come in 2, 3 and 5-hp models. Outstanding features claimed include freedom from vibration and extreme quietness of operation. Manufacturer also states that the compressors are easy to install and require no special compressor rooms or foundations. The units are completely enclosed and have no belts or couplings. Available with either vertical or horizontal tank mountings. *Davey Compressor Co, Kent, Ohio.*

Open-Shelf Filing Unit

This Diebold Open Shelf Filing unit is based on a modular concept featuring "Add-a-Shelf." This allows for expansion of filing facilities when additional space is needed. It is accomplished through a unique interlocking system in which shelf unit can be added side-to-side, top-to-bottom or back-to-back. Featured is a removable posting shelf that locks into place where and when needed. Available in two sizes letter and legal-size. *Diebold, Inc, 818 Mulberry Rd, SE, Canton 2, Ohio.*



Axle-Bearing Remover

This new "bridge" tool (No. 961) makes removal and installation of flange-type rear-axle bearings easier, manufacturer claims. Designed to work with OTC Grip-O-Matic pullers (hydraulic or manual) the bridge eliminates the heating, torches and hammers usually needed to pull bearings. In combination with the puller, it's also used to install a new bearing on the shaft. Attachments are available to fit nearly all cars including 1958. *Owatonna Tool Co, 339 Cedar St, Owatonna, Minn.*

TRUCK MIRROR HEAD, a 68 in. rectangular unit, utilizes solid one-piece "U" ring rubber gasket that also serves as a protective cushion on which the glass "rides." Cushioned glass gets extra protection against breakage, and helps prevent image distortion caused by vibration. The swivel ball assembly, offset in the mirror back allows better mirror view adjustment. *J. W. Speaker Corp, Milwaukee 12, Wisc.*

TWO-WAY RADIO MODIFICATION provides operator with reception from both private and non-private lines in the mobile system. Motorola has added "Dual Squelch" to its private line equipment to open the way to gradual conversion of a system to private, interference-free mobile communications. After a system is fully converted to private line, "Dual-Squelch" allows noise-free monitoring of the channel. A mobile unit operator can tell if channel is free by simply turning to dual operation. Set is automatically turned to "Dual Squelch" operation when microphone is lifted to transmit. At the base station, "Dual Squelch" can be turned on by pressing a bar switch on base of microphone. *Motorola Communications & Electronics, Inc, 4501 W Augusta Blvd, Chicago 51, Ill.*

DRY-POWDER EXTINGUISHER. Called "Dri-Power", it measures 17½ in. high, weighs 8 lb, is pressurized with 130 psi nitrogen. Extinguishing efficiency rating is equal to eight 1-quart vaporizing liquid (carbon tetrachloride) extinguishers. One-piece spun cylinder meets ICC standards, is hydrostatically tested for 800 lb with rupture point of 3000 lb. Price $18.50. *Safety First Products Corp, Elmford, N. Y.*

POWER SPEAKER entitled "Big Voice" is said to be adaptable to all two-way radio speakers. This unit extends the listening range hundreds to thousands of feet, insuring that the driver will hear all messages even when working away from his vehicle. *Motorola Inc, Communications & Industrial Electronics Div, 451 W Augusta Blvd, Chicago 51, Ill.*

PLASTICS AND ACOUSTICAL MATERIALS. Pearsonite has a broad range of application in transportation field. Typical uses include scuff guards; acoustical headlinings for interiors; automotive exterior trim areas and ornamentation; partitions and bulkheads; seating, as well as decorative appliques for covering worn panel areas. According to manufacturers, Pearsonite will not burn, and resists abrasion from continued hard use. Available in over 3000 variations of color texture, gage and perforating pattern—to 100 yards. *Metallic Plastics Corp, 27-10 44th Drive, Long Island City, N. Y.*

LIQUID LOCK WASHER, called Loctite sealant, secures nuts and bolts so that vibration won't shake them loose—at same time they can be removed with ordinary tools. Thin liquid seeps into spaces between threads without removing fastener. Equipment can thus be made vibration-proof without disassembly. *American Sealants Co, 103 Woodbine St, Hartford 6, Conn.*

TRANSMISSION BAND-ADJUSTING SET. This simplified set of quality tools makes possible factory-recommended band adjustments on all automatic transmissions. Proto's band-adjusting tool No. 2357 takes attachments for adjusting Fordomatic, Mercomatic, Hydramatic, Dyna Flow, Powerflite and Ultramatic transmissions. *Proto Tool Co, Los Angeles, Calif.*

PENETRATING OIL, containing Molybdenum Disulfide, plus DPX-16, comes in 16-oz self-spray can. Corrosion penetrant handles easily and economically. Maker claims Aerosol dispenser provides strong, fine stream to "hard-to-get" places with bull's eye accuracy. Price $1.98. *W. J. Ruscoe Co, Akron 1, Ohio.*

BALL-BEARING DISTRIBUTOR PLATES in both single-point and dual-point models, incorporating a hardened and ground precision ball bearing, have been designed as replacements for original equipment bushing-type breaker plate. Catalog available upon request. *Renberles Products Co, 18606 Fitzpatrick Ave, Detroit 28, Mich.*

ASPHALT COATING is said to provide greater resistance against weathering and abrasion. It utilizes a coal tar pitch base. Applied over either new or old asphalt, it is said to form a tough, waterproof surface seal that is impervious to drying effects of sun and temperature variations. Its use is claimed to greatly lessen moisture seepage which loosens surface aggregate through frost damage. Black Top Seal is also said to be unaffected by solvent action of gasoline and oils. *Monroe Co, Inc, Cleveland, Ohio*

COLLARED SCREW HEADS are now available on entire line of Sure-Tite stainless hose clamps. Series C-S, with collared screw prevents screwdriver from slipping. Series S, with deep-slotted screw does not limit size of screwdriver, and speeds up installation. Both series are available in all sizes, and are used on original equipment, as well as replacement for automotive heater, radiator, plastic pipe and air hose. *Wittek Mfg Co, 4305-37 West 24th Place, Chicago 23, Ill.*

PORTABLE LAMP called "The Commando," features a clip-on red flasher signal and extension flasher signal with a 10-ft cord. This 67-oz lamp is powered by a weather-resistant "Eveready" six-volt lantern battery. It is claimed to withstand effects of salt water. *Koehler Mfg. Co, Marlborough, Mass.*

CONCRETE FLOOR HARDENER, (No. 860) is a liquid that penetrates, hardens and densifies old or new floors. Chemical reaction recrystallizes floor into a non-porous surface. Applied by brush or mop. *Monroe Co, Inc, Cleveland, Ohio.*

NYLON SCREEN FILTERS, called Danco, are custom-molded in types, sizes, and shapes to meet specific filtering requirements. Applications include filtration of lube, diesel, and hydraulic oils, gasoline, cutting oils, air. *The Danielson Mfg Co, Industrial Products Div, Danielson, Conn.*

INDIVIDUALIZED TRUCKS SIGNS, of zinc-coated bonderized steel or aluminum, are rust proof. Baked-enamel finish is claimed to last life of sign. Split arrangements available for roll-up or tailgate side opening doors. All sign lengths available in sections. *Eastern Metal of Elmira, Inc, Elmira Heights, N.Y.*

RUST PREVENTIVE for cooling systems, Called Rust Master Royal, it's claimed to seal radiator leaks and rust-proof system for one year. Containing no acid caustic or strong alkali, maker says it's non-poisonous, non-flammable, and harmless to metal, rubber and paint. *Rust Master Chemical Corp, Cambridge, Mass.*

TRANSISTORIZED POWER SUPPLY for two-way radio equipment. This 25-watt "piggyback" transistorized power supply is guaranteed by maker to give over 80% efficiency. It furnishes total receiver high voltage, thereby reducing standby drain of mobile unit's receiver. For existing Du Mont equipment, but also usable with other manufacturers' equipment. *Allen B Du Mont Laboratories, Inc, 760 Bloomfield Ave, Clifton, N.J.*

GIANT TRUCK MIRROR fully retractable with reflectorized back, measures 6-in. by 16-in. Specially designed locking slots and two high-carbon steel-tension springs lock frame in six different positions, while head adjusts separately to any angle. *Mosby Mfg Corp, 805 Phoenix Bldg, Minneapolis 1, Minn.*

NEW INDICATOR DIAL (No. AG-50) for Sunnen AG-300 Precision Clearance Gage. Claimed to be easier to use and read. Present users may trade in present indicators at nominal cost. *Sunnen Products Co, 7910 Manchester Ave, St Louis 17, Mo.*

NEW SYNTHETIC ENAMEL called Nason Glyko Fleet Finishes, is said to have a drying time of 45 min under normal conditions. Available in ready-to-spray form, and all standard equipment colors. *R N Nason Co, 151 Potrero St, San Francisco, Calif.*

Mr. Edward Gutschmidt
Fleet Superintendent

In fleet service . . .

"We just don't have bearing trouble"

The Bend-Portland Truck Service covers central and southeast Oregon. Established in 1927 this progressive company has continued to grow because of an area-wide reputation for service and efficiency.

Recently Mr. Dale Huff of The Cleveland Graphite Bronze Co. interviewed Mr. Edward Gutschmidt, fleet superintendent, as to freight services and engine bearing performance. We believe you will find highlights of this discussion and the performance record of Clevite 77* bearings informative and impressive.

Q Mr. Gutschmidt, what is the major portion of your business?

A Primarily we deal in auto freight and typical scheduled carrier services.

Q How about equipment? What do you have?

A Let's see, 19 road rigs and 54 city trucks. If you include trailers and company cars it totals around 125.

Q With regard to make, do they vary?

A Yes, our fleet includes eight different makes.

Q What would you consider the length of an average haul?

A Well, our longest haul is about 500 miles and the shortest 120. Our average, however, would be about 200 miles.

Q How are driving conditions over your routes?

A They really vary. We travel from sea level to 4000 feet and run into every conceivable condition. Temperatures go down to 30 below in winter and as high as 110 during the summer.

Q What about annual milage?

A Each road rig averages about 100,000 every year. The city fleet about 8,000.

Q I assume you handle your own maintenance?

A That's right, we have a fully equipped maintenance shop.

Q When it comes to engine bearings do you have a preference?

A Yes, our number one choice is Clevite 77. We've been using them for about 10 years.

Q Why Clevite?

A Mainly because we have yet to find a better bearing. We have run main bearings 400,000 miles and rod bearings up to 225,000.

Q Going back for a moment, why did you start using Monmouth Clevite 77 bearings?

A Because they are equal in quality and material with original equipment.

Q Do you have an established bearing maintenance program?

A Truthfully, we never worry about bearings until there is some other work to do on the engine. We just don't have bearing trouble.

Day after day fleet operators everywhere learn that Clevite 77* is the finest high-duty engine bearing obtainable. Its patented tri-metal construction provides greater fatigue strength, corrosion resistance and a superior running surface.

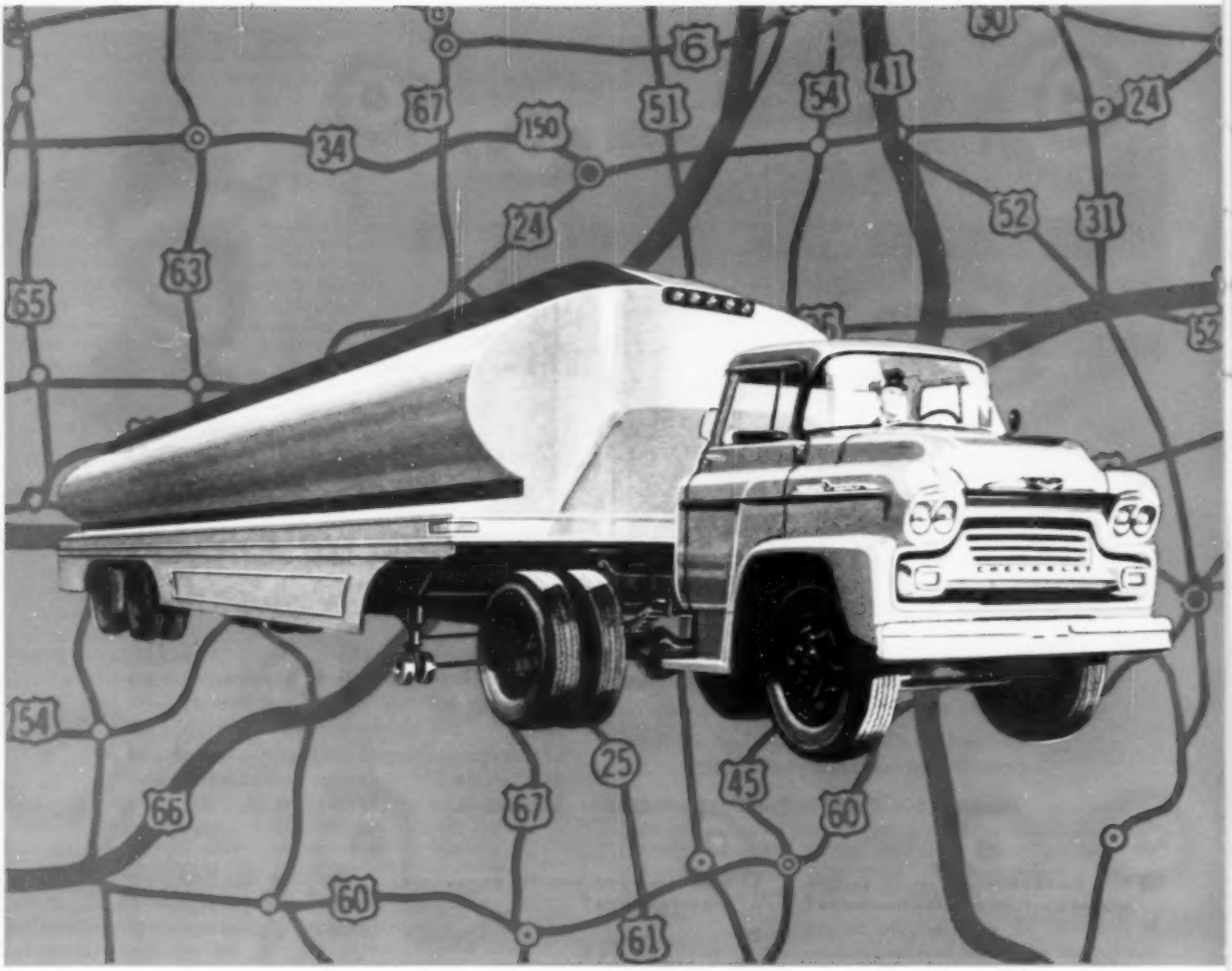
To improve engine performance . . . to cut "down time" . . . to reduce maintenance costs . . . contact the nearest N.A.P.A. jobber for Monmouth bearings.

*The words Monmouth, Clevite and Mimic are registered trade marks of Clevite Corporation.

Monmouth
ENGINE BEARINGS

CLEVITE SERVICE

The Cleveland Graphite Bronze Co.
Division of Clevite Corporation
Cleveland 3, Ohio, U.S.A.



Never before has Chevy been

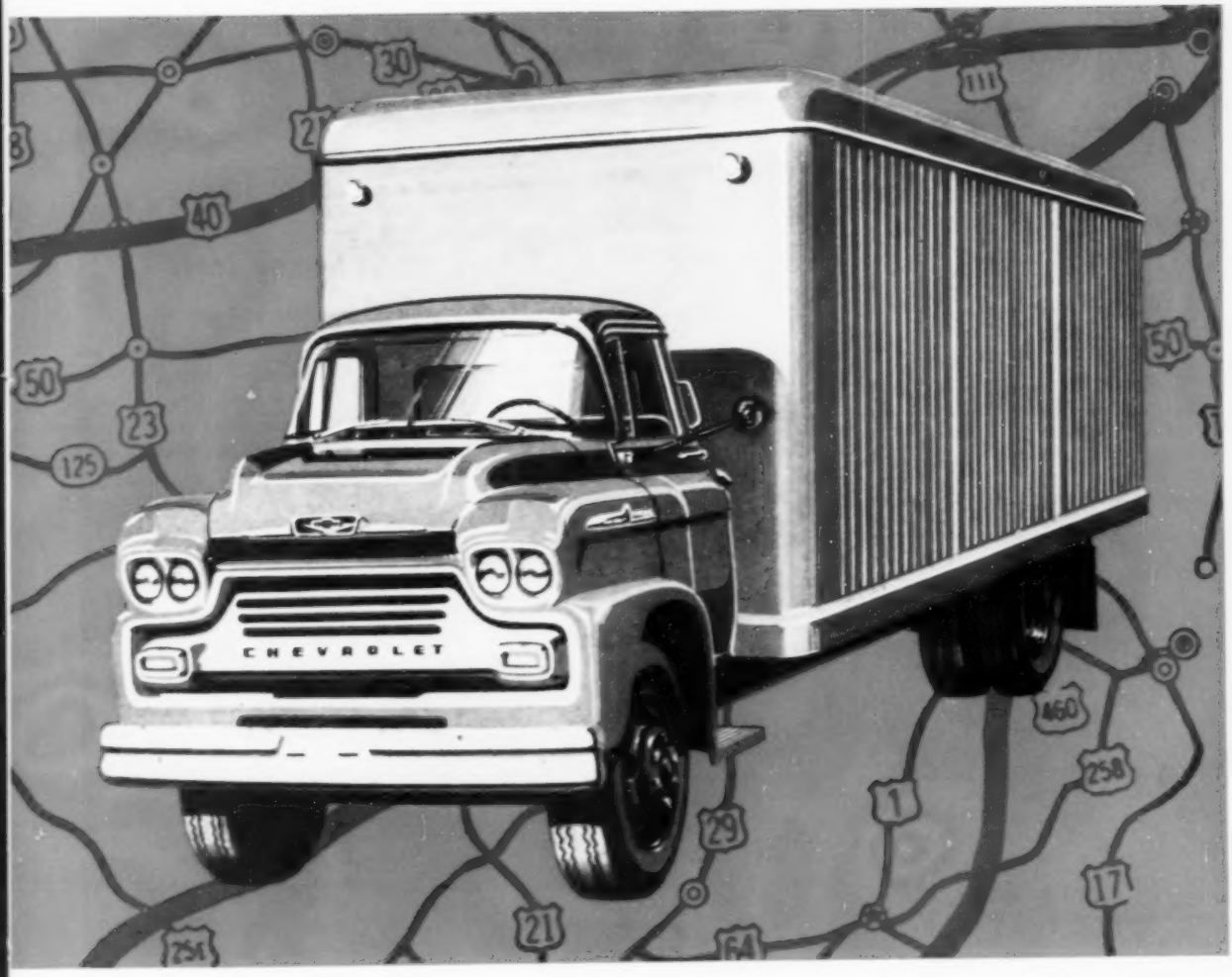
Here's a truck specially designed to take to your kind of work like a duck takes to water! It's Chevrolet for '58 with new hustle, muscle and style that mean money in your pocket!

As you can see, Chevy's a honey of a truck this year, and that handsome, broad-shouldered '58 appearance only hints at the host of new and improved features that are ready to put you dollars ahead in the years to come. *Here's a truck ideally suited for haulers in your line of work.* In styling, for instance, Chevrolet for '58 has what it takes to build your business prestige every day in the week: new dual headlamps, new massive grille, newly contoured hood, new cab beauty, to mention just a few innovations.

And what workers these new Chevrolet middleweights are! There's extra power to do more work faster from new, more durable V8's. The

CHEVROLET

NEW CHEVROLET



so right for highway haulers!

heavy-duty Taskmaster V8 is standard in Series 50 L.C.F. models and optional at extra cost in Series 60 conventional models. These engines are leaders in their respective classes for short-stroke efficiency, and they give you the economy and dependability benefits of high compression ratios, three fuel filters, chrome-plated top piston ring, roller-type timing chain and precision carburetion. Standard power for Series 60 models is the economy champ of the middleweight class, the newly improved 150-h.p. Jobmaster 6!

High G.V.W.'s—up to 21,000 lbs. with heavy-duty options—assure big, profitable payloads. Heavy-duty options, including heavier front and rear springs, 7,000-lb. capacity front axle and 16,000-lb. capacity rear axle, enable new Series 50 and 60 models to haul loads like heavyweights, yet provide middleweight truck economy. (Chevy leads the top-tonnage class, too, with new Series 90 and 100 models offering G.V.W.'s up to 36,000 lbs. and revolutionary new Workmaster V8!) Other work-whipping Series 50-60 components include husky parallel-design frame, hefty rear axle and the proper springs and transmissions to meet your needs precisely.

There are many such reasons why you'll want to see your Chevrolet dealer soon! . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

TASK · FORCE 58 TRUCKS

Check up! Are your brake systems as safe as they should be?

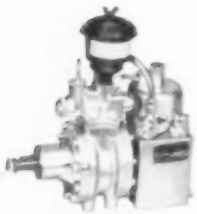
Wagner
AIR BRAKE COMPONENTS

help increase safety and reduce truck operating costs

How do your brake systems rate? Have you given thought to additional ways you can make your vehicles safer to operate, ways to reduce "down time", and changes that will help increase profits?

Wagner offers a complete line of equipment for air brakes and control systems. It includes rotary air compressors, brake application valves, vehicle protection valves, brake actuating units, moisture ejection valves, warning devices, air tanks, tractor-trailer hose couplers, air line hoses, air line connectors, field installation kits, and unit repair kits.

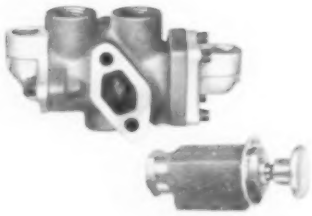
You'll gain in safety and economy by standardizing on Wagner products . . . and it will mean fewer spare units and parts for you to carry in your inventory. Wagner Factory Service Branches in 23 major cities and the vast network of qualified Wagner Air Brake Distributors throughout the United States and Canada assure prompt delivery of Wagner products.



ROTARY AIR COMPRESSORS are available in either 9 or 12 C. F. M. capacity. These Wagner Compressors have fast air recovery to assure an adequate supply of air pressure at all times. Rotary motion reduces vibration. Oil separation and cooling before air is discharged reduces temperature and prevents carbon formation.

FOOT OPERATED BRAKE APPLICATION VALVE, of the high capacity type, provides the driver with control of the vehicle brakes. It meters applied braking pressure in proportion to foot pressure exerted against brake pedal or treadle. The Wagner line also includes a HAND OPERATED APPLICATION VALVE. It provides independent control of trailer brakes.

RELAY QUICK-RELEASE VALVE controls the brakes on specific axles, acting in unison with the driver-controlled application valve. It automatically meters pressure directly from tank, speeding normal brake application and release. The relay valve is particularly suitable for the rear axles of long wheelbase vehicles.



TRACTOR PROTECTION and EMERGENCY BRAKE VALVES constitute a combination of two valves installed on the tractor. The emergency brake valve is a manual triggering unit for emergency braking the trailer and for actuating the tractor protection valve. The protection valve seals the tractor air lines.

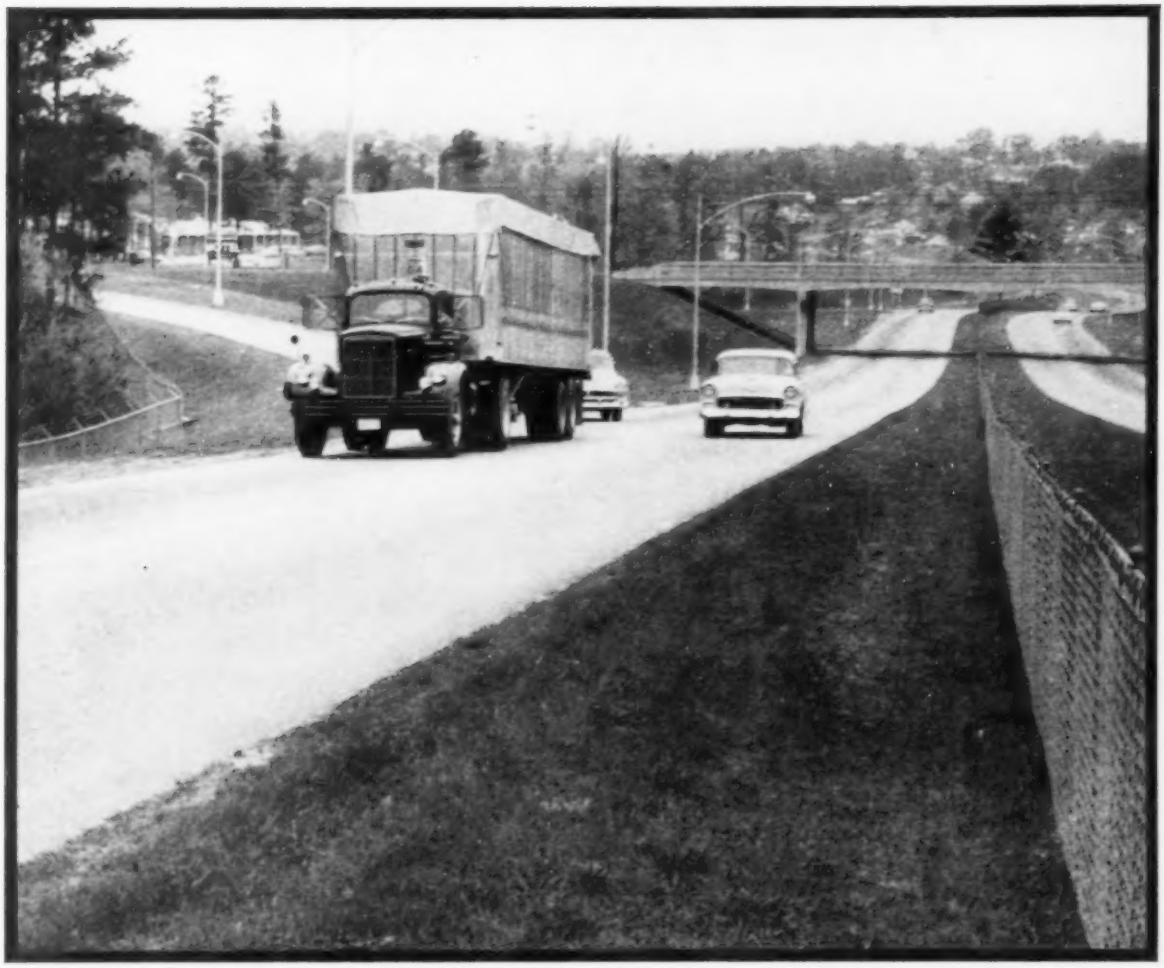
MOISTURE EJECTION VALVE is fully automatic, operating in the 15-25 psi pressure range. Normal brake applications operate the valve, keeping reservoir clean and moisture-free. Expulsions occur without a notable drop in gauge pressure. Prevents accumulation of moisture or sludge in air tank.

LOW PRESSURE INDICATOR—buzzer or lamp—warns the driver of air braked vehicle if air pressure is below the safe driving range. In use, the warning circuit is controlled by a pneumatic switch which also is connected to the pressure side of the air brake system. Unit automatically closes the circuit if pressure drops below predetermined value.

Wagner Air Brake Systems and Air Brake Components for trucks, tractors, trailers, buses, and off-the-road equipment are fully described in CATALOG KU-201. Write today for your free copy. And remember—when ordering new equipment, be sure to specify Wagner Air Brakes.

Wagner Electric Corporation 6480 Plymouth Avenue, St. Louis 14, Missouri, U. S. A., *(Branches in principal cities in U. S. and in Canada)*

LOCKHEED HYDRAULIC BRAKE PARTS, FLUID and BRAKE LINING • AIR HORNS • AIR BRAKES • TACHOGRAPHS • ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES



R. R. WYNNE, GEORGIA HIGHWAY EXPRESS, INC., reports:

"Nylon cord tires last 82% longer than ordinary tires on grueling, high-speed runs"

CUT ROAD DELAYS 50%. "Frequent road delays and tire repairs cost us plenty before we switched to nylons—especially on runs like the one shown here. With nylon cord tires, road delays are cut in half and the average mileage life of our tires is 82 per cent higher. The truck in the picture hauls maximum-weight loads of 44,000 pounds, 24 hours a day, at speeds up to 50 miles per hour. Heat damage and flex strain kill ordinary tires that get that kind of treatment—but not nylons.

COST PER MILE ALREADY DOWN 11%. "Most of the nylon cord tires we've purchased are still accumulating mileage after four recaps! Nylon resists bruise damage; moisture can't rot nylon. Advantages like that help lower the cost per mile, and ours has decreased 11 per cent since we began using nylon cord tires in 1953."

PROVE TO YOURSELF that the advantages of nylon cord tires can add up to real savings under your road and load conditions. Ask your dealer about nylon cords today. Du Pont makes the tough, long-lasting nylon. Nylon cord tires are available from all tire makers.

Du Pont nylon for tire cord

DU PONT

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

THE SAFEST, STRONGEST TIRES ARE MADE WITH NYLON

Stainless Steel trailers cut cleaning time from days to minutes

AT THE BLANTON COMPANY, ST. LOUIS, MISSOURI

The Blanton Company delivers its vegetable oils and shortening in Stainless Steel tank trailers because, according to Traffic Manager M. C. Baker, "Carbon steel tankers became pitted. They smelled bad. Oil and grease adhered to the tank walls. In fact, it sometimes took two days of scouring to clean one.

"Our Stainless tanks can be thoroughly cleaned with water in a relatively short time. Oily residues wash right off the smooth Stainless.

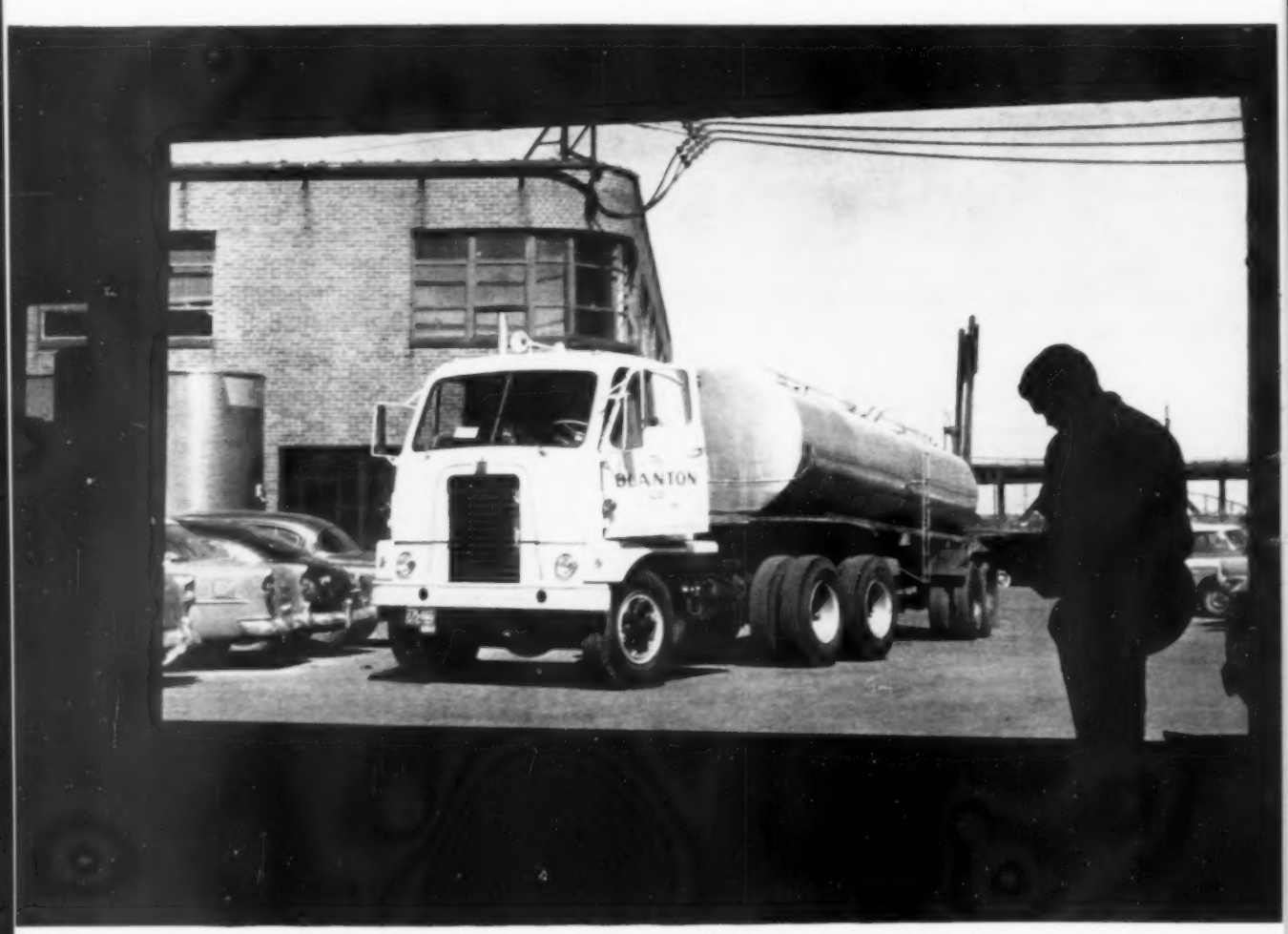
"Because these tanks are so easy to clean, we get twice as much use from them. In one day we can make a delivery, pick up raw materials on the return trip, unload, and be ready to deliver again the same day."

. . .

When you buy new trailers, remember this: Thousands of Stainless Steel trailers have been built and *not one has ever been known to wear out.*

USS

USS STAINLESS STEEL



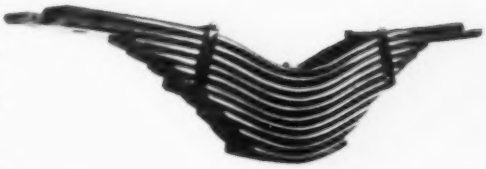
This Stainless Steel tank trailer carries 40,000 pounds. Because the tank is Stainless Steel, it can be thoroughly cleaned with water in a few minutes.

UNITED STATES STEEL

-where loads are REALLY HEAVY!

ACK trucks include some of the largest in the industry . . . designed to carry tremendous loads which impose heavy responsibilities on every structural member . . . body . . . frame . . . chassis . . . and especially the springs.

As one of the suppliers of springs for Mack trucks, BURTON has proved equal to the extreme requirements of these famous heavy duty vehicles. Here, the highest degree of dependability is an essential quality . . . for the performance of the springs profoundly influences that of the entire vehicle.



You are invited to follow the example of America's foremost truck and trailer manufacturers by bringing your spring requirements to the attention of Burton's engineering staff.

AUTO SPRING CORP.

WESTERN AVENUE AT FORTY-EIGHTH STREET • CHICAGO 32, ILLINOIS

Size-Weight Changes Loom

. . . over the truck and bus industries. The Transportation Committee of the American Association of State Highway Officials has been authorized to begin a review of AASHO policy on vehicle size and weight.

Tops on the list for consideration will be the findings of the current AASHO Road Test underway in Illinois and the awaited final report of the National Highway Research Board's Committee on the Economics of the Sizes and Weights of Vehicles. Vehicle operators and equipment suppliers will be invited to send representatives to the AASHO committee.

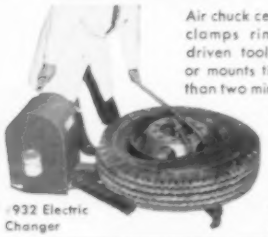
Present policy sets widths at 96 in.; heights at 12 ft. 6 in.; lengths at 35 ft for single trucks, 40 ft for three-axle buses and 35 ft for two-axle buses. Gross loads range from 32,000 to 73,280 lb.

TUBELESS TIRES ARE EASIER TO SERVICE

with the Right Equipment!

BISHMAN Truck Tubeless Tire Equipment takes all of the heavy, hard, slow work out of servicing truck tubeless tires. SAVE Time, Tires and Tempers with BISHMAN Equipment.

ELECTRIC POWER mounts and demounts 17.5 through 24.5 Tires.



Air chuck centers and clamps rim. Power driven tool removes or mounts tire in less than two minutes. NO LIFTING, FAST-SAFE

Hand operated available

#932 Electric Changer

SIMPLE, POSITIVE Bead Breaker for 17.5 through 24.5 Tubeless Truck Tires.

Pull up—locks on rim. Push down—breaks bead.
No pounding
No perspiration
No profanity.

BISHMAN #937 Bead Breaker

ONE MAN BEAD EXPANDER for Tubeless Truck Tires 8.20-15 through 12-24.5

Instantly adjustable to all sizes. Powerful full circle compression. Easy to use in any position. SAFE.

BISHMAN #936 Bead Expander

Heavy rubber, nylon reinforced with aircraft safety buckle. Nothing can break and fly. Operates on regular air supply.

TIP-IN TESTER Takes Toil Out Of Testing Tubeless Tires.

TIP-IN TESTER Makes Testing Heaviest Tire an Easy One-Man Job.
All lifting eliminated.
Just roll tire to tester, handling device tips tire into tank, rotates it to test and tips it out.

BISHMAN #934 Tip-In Tester

Modern BISHMAN Equipment is sold only through leading Automotive Equipment Jobbers. Ask your jobber about BISHMAN Truck Tire Equipment.

Bishman MANUFACTURING CO.
ROUTE 2, OSSEO, MINN.

Changes in Midwest Reciprocity . . .

. . . agreements could affect operators around the country. Three key states in cross-country travel —Iowa, Illinois, and North Dakota have announced new moves of import to truckers.

An agreement with New York . . .

. . . is to be negotiated by the Iowa Reciprocity Board, according to Chairman John M. Ropes. Mr. Ropes said negotiations are expected to get underway "in the not-too-distant future." Mr. Ropes stated, "The 57th session of the Iowa General Assembly created a Reciprocity Board vested with necessary powers to negotiate and conclude reciprocity under several different alternatives. We do not at the present time have reciprocity with the State of New York, but will be negotiating with them in the not-too-distant future."

Reciprocity permits . . .

. . . may be needed for out-of-state operators with trucks traveling through Illinois in 1958, according to the Missouri Bus and Truck Assn. MBTA warns that operators from elsewhere in the country may have to license truck-tractors in Illinois in proportion to number of miles traveled in that state. However, the Missouri Bus and Transit Assn. doubts that other states will honor such licenses.

The association advises companies to try to delay buying licenses until it is clear just what is expected.

Reciprocity all the way . . .

. . . has been assured in North Dakota. Attorney-General Leslie R. Burgum has ruled that the State Highway Department may enter reciprocal agreements on truck licensing with any state for trucks of any weight. The opinion placed a new interpretation on a law passed by the 1957 Legislature. In the past, Mr. Bergum had held the law did not permit signing of reciprocal agreements on trucks weighing over 24,000 lbs. According to Highway Commissioner A. W. Wentz, old agreements may be renegotiated.

Gustav E. Heiber, Vice President in Charge of Maintenance, instituted oil sampling program in 1949. Found Cities Service C-300 Motor Oil can be used five times as long as previously customary.

Centrifuge Test is one of series which determine properties and impurities of oil after use in B & W buses. Samples are taken at 2000 mile intervals from each coach.

30,000 miles between oil changes! 400,000 miles before overhaul!

B & W Lines finds oil sampling and Cities Service lubrication pay off

The 51 buses of The B & W Lines roll up about 2,500,000 miles per year, serving Boston, Worcester and points between.

Yet, with all of this mileage, B & W buses are setting phenomenal performance records, thanks to a unique oil sampling and maintenance program combined with Cities Service lubrication.

Prior to this sampling program, oil was changed every 4000 to 8000 miles. Now, with sampling and Cities Service C-300 Motor Oil, crankcases are drained every 30,000 miles on gasolene units and every 20,000 miles on diesel units.

Samples are taken from the engines every 2000 miles to determine the oil's viscosity, amount of asphalt, water, solids, metal, and acidity. But they have actually determined far more . . . for they've proved that Cities Service C-300 Motor Oil can effectively lubricate for far longer periods than ordinary motor oils . . . and still lengthen periods between overhaul.

B & W's A.C.F. and Twin Coach gasolene units are now rolling up 350,000 to 400,000 miles between overhauls!

This experience clearly demonstrates what can be achieved through scientific lubrication practice and Cities Service Lubrication. If you'd like recommendations for your operation, talk with a Cities Service Lubrication Engineer from the nearest Cities Service office. Or write: Cities Service Oil Company, Sixty Wall Tower, New York 5, N. Y.

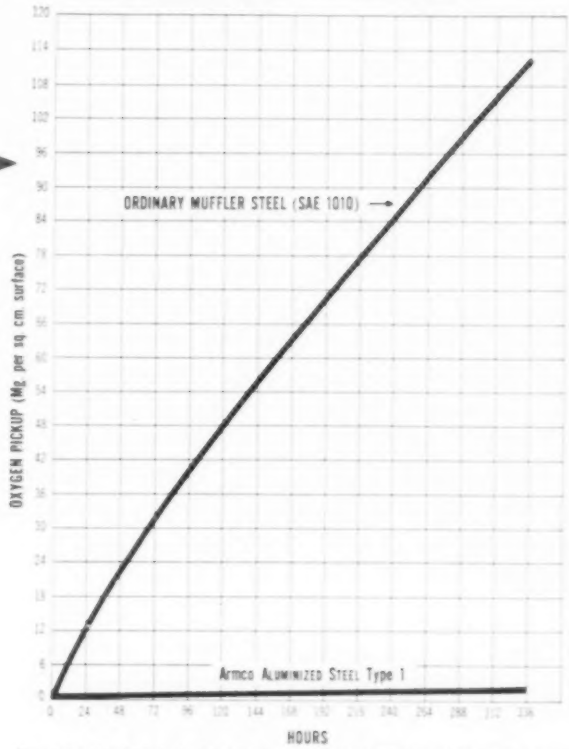
CITIES SERVICE

QUALITY PETROLEUM PRODUCTS

HOW ARMCO ALUMINIZED STEEL

Withstands Muffler Heat

Total Oxidation of ALUMINIZED STEEL Type 1 and Plain Steel at 1250 F



The rate at which hot metal picks up oxygen tells how fast it will fail. These graphic results from heating tests show that Armco ALUMINIZED STEEL Type 1 resists oxidation, while ordinary muffler steel moves rapidly toward failure when exposed to high heat.

Heat is a great muffler destroyer. Fleet operators have long suspected this, but now road and laboratory tests prove it.

For example, in the test on which the graph is based, samples of ordinary muffler steel and Armco ALUMINIZED STEEL were heated to 1250 F, and cooled intermittently, to approach conditions in hard-working truck mufflers.

Results are shown on the graph. High heat literally "burned up" ordinary muffler steel, but Armco ALUMINIZED STEEL resisted destruction. This is why mufflers made of Armco ALUMINIZED STEEL last much longer—cut down-time and reduce muffler replacement costs.

If you would like to know where you can get long-lasting mufflers made of Armco ALUMINIZED STEEL, just fill in and mail the coupon.

ARMCO STEEL CORPORATION
1148 Curtis Street, Middletown, Ohio

Where can I get mufflers made of ALUMINIZED STEEL for:

- ☐ Trucks and tractors
- ☐ Autos

NAME _____

FIRM _____

STREET _____

CITY _____ ZONE _____ STATE _____

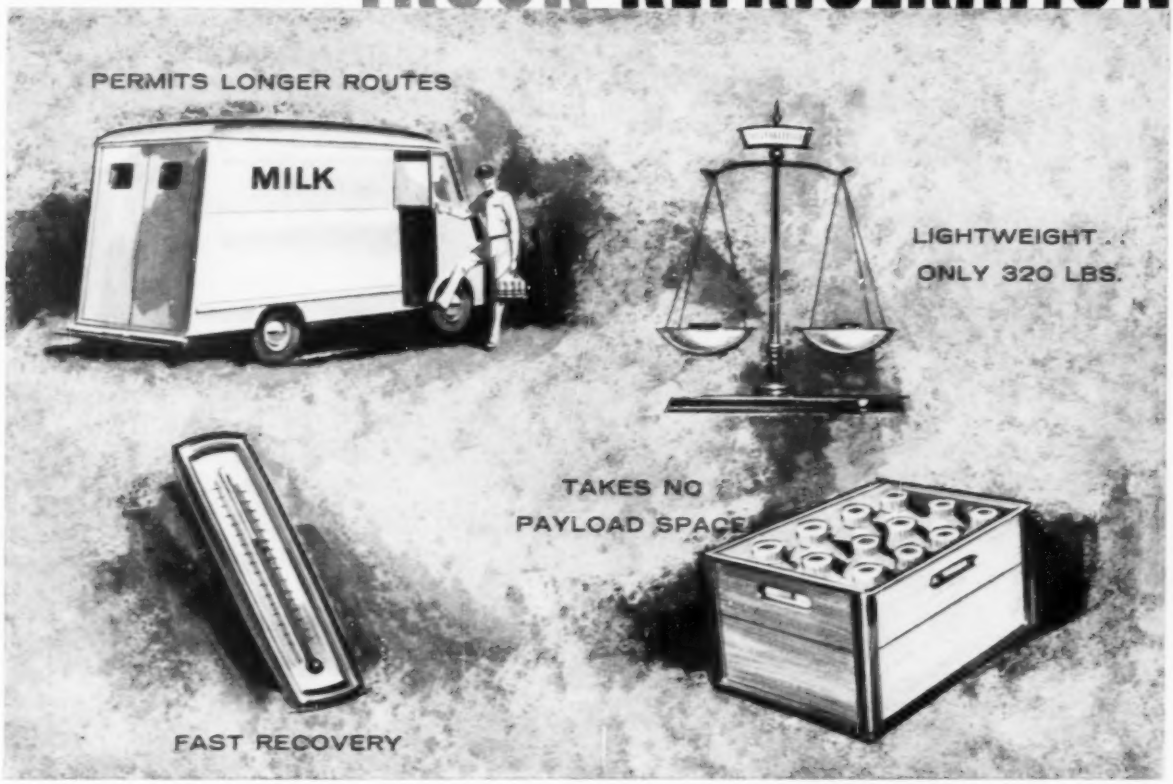
ALUMINIZED STEEL
Cold-Rolled Steel
High Strength Steel
Stainless Steels
Steel Tubing
ZINCGRIP®
ZINCGRIP PAINTGRIP®

ARMCO STEEL

ARMCO STEEL CORPORATION • 1148 CURTIS STREET, MIDDLETOWN, OHIO

SHEFFIELD DIVISION • ARMCO DRAINAGE & METAL PRODUCTS, INC. • THE ARMCO INTERNATIONAL CORPORATION

KOLD-HOLD® TRUCK REFRIGERATION



LANCE a mechanical refrigeration system designed specifically for RETAIL MILK DELIVERY

A new LANCE unit will pay for itself through reduction of product spoilage, longer runs, greater payloads, low operating and maintenance costs and reduced body deterioration.

The unit is designed for installation under the insulated floor or in the cab with piping to the overhead blower, occupying no payload space.

Extreme simplicity and efficiency of the condensing unit and its power source provide new economy of operation. Power is derived from the engine crankshaft pulley through a heavy duty shaft and a simple electric clutch.

Find out now, how the new LANCE unit can save money and make money for you.

KOLD-HOLD®
DIVISION
Tranter Manufacturing, inc.
231 E. Hazel St., Lansing 9, Michigan

ask the **KOLD-HOLD** man in your area for help with your truck refrigeration problems

BOSTON 16, MASS.
F. W. Smith
25 Huntington Ave.
Copley Square

CHICAGO, ILL.
R. S. Warner
704 S. Yale
Villa Park, Ill.

DALLAS, TEXAS
Leo J. Freitas
2516 W. Mockingbird Lane

DENVER 17, COLO.
A. J. Nelson
P. O. Box 5502

KANSAS CITY, KANS.
Samuel W. Johnson
P. O. Box 163
Muskogee, Oklahoma

LOUISVILLE 6, KY.
H. H. Emler, Jr.
843 E. Main Street

LOS ANGELES 4, CALIF.
Kold-Hold Pacific Co.
203 S. Western Avenue

MINNEAPOLIS, MINN.
C. P. Richardson
4812 West 70th Street

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M. H. Gwynn
4231 Franklin Road

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671 Ridgeway Ave.

ST. LOUIS 21, MO.
Wm. J. Bagley
1332 Willingham Dr.

SEATTLE 1, WASH.
O. C. Yates
2609 Second Avenue

TOLEDO 13, OHIO
R. D. Spitler
4835 Oakridge Drive

FOREIGN
Silcox Refrigeration Company
70 Pine St.
New York 5, N. Y.

New DODGE 6-speed automatic transmission takes the work out of truck driving!

EXCEPTIONAL ADVANTAGES PROVIDED BY TORQMATIC OPTION THAT FEATURES:

- **Torque converter for maximum power usage!**
- **Automatic lock-out for top fuel economy!**
- **Hydraulic hill-retarder for increased safety!**
- **Dash-mounted control lever for easy operation!**

Now fleet owners can enjoy remarkable new maintenance and operating economy on many Dodge medium- and heavy-duty trucks, thanks to new Torqmatic automatic transmission.

Torqmatic is easy to operate. No more double-clutching and split-shifting. A simple flick of the lever controls all six forward speeds and reverse. Driver training costs go down while driver efficiency goes up every hour on the road.

This 6-speed automatic transmission multiplies torque in starting gears to give you faster acceleration under heavy loads . . . then the torque converter is automatically locked out to provide maximum engine efficiency, both on and off the road.

Torqmatic cuts travel time by reducing power loss on hills . . . cuts maintenance costs by eliminating clutch entirely. Built-in hydraulic hill retarder gives you peak safety for drivers and loads. It prevents excess wear and heat on service brakes, reduces lining repair expense from 50 to 87.5%.

Why not check into it with your Dodge dealer? Torqmatic is available now on all Dodge 500, 600, and 700 Conventional and School Bus models.

DODGE *PowerGiants*

Radar Installed To Push Safety . . .

. . . on Jersey highways is a new step by truckers to police themselves. Primary purpose of a radar set recently bought by the New Jersey Motor Truck Assn. is to discourage speeding and improper driving by truck company employees. The NJMTA Council of Safety Supervisors is currently teaching its patrol members how to operate the apparatus.

Major trouble spots . . .

. . . will get top attention in the association's self-policing campaign. "Classes" have been held on Route 22, between Newark and Plainfield, and on Route 130, between Camden and Bordentown. These highways carry an exceptionally heavy volume of truck traffic and have been defined by the council as top-problem areas.

However, radar use will not be limited to these routes exclusively. According to the council chairman, Earl R. Wallace, it is hoped that enough men will be trained to keep the state's principal truck routes under regular radar surveillance.

Drivers will be reported . . .

. . . to their employers for unsafe practices. The cooperative road patrol maintained by NJMTA, is purely a trucking industry organization and has no police powers. The patrol will not give tickets. But this does not exempt drivers from receiving speeding tickets detected on police radar.

John W. Stapleton, district safety supervisor for Cooper-Jarrett, Inc., Jersey City, is in charge of radar instruction. Stapleton was taught to use the electronic device while with the patrol sponsored by the Pennsylvania Motor Truck Assn.

Patrols are alerted . . .

. . . also, to watch for trucks that do not maintain a safe distance behind the vehicle in front. In addition to speeding and tailgating, they are on the lookout for indiscriminate weaving from lane to lane, acts of discourtesy, and infractions of traffic rules.

How to Check Air Brakes . . .

. . . is the subject of a nationwide meeting program to be conducted for truck operators by Bendix-Westinghouse Automotive Air Brake Co. field representatives.

Completely educational in nature, the program explains in full detail air-brake system leakage tests, brake analysis, and preventive maintenance procedure. It will cover stopping distance requirements, variables in braking, foundation brakes, compatibility of devices, line sizes and proper connections, test procedures, device point-by-point check, and the economics of proper maintenance.

More than 200 meetings will be held beginning this month and running into April. For time and place, write Bendix-Westinghouse at Elyria, Ohio, or call your local Bendix-Westinghouse distributor.

On Fire Trucks Eberhard HARDWARE

No. 4886 Paddle Handle Recessed Door Lock. Slam action, 2 point engagement, stainless steel springs.

No. 4879 Paddle Handle Recessed Door Lock. Slam action, single point engagement.

No. 5551 Lock Handle. Stainless steel, non-key locking.

BODY MFGD. BY P. E. VAN PELT INC.
OAKDALE, CALIFORNIA

Representing just about the "last word" in modern fire trucks, this fine example of design and craftsmanship incorporates 3 standard (E) items to a decided advantage.

On Service Trucks Eberhard HARDWARE

No. 4884 Paddle Handle Recessed Door Lock. Slam action, 2 point key locking. Rights and lefts. Right hand shown.

No. 4881 Paddle Handle Recessed Door Lock. Slam action, single point engagement. In pairs right or left. Right shown. Key locking.

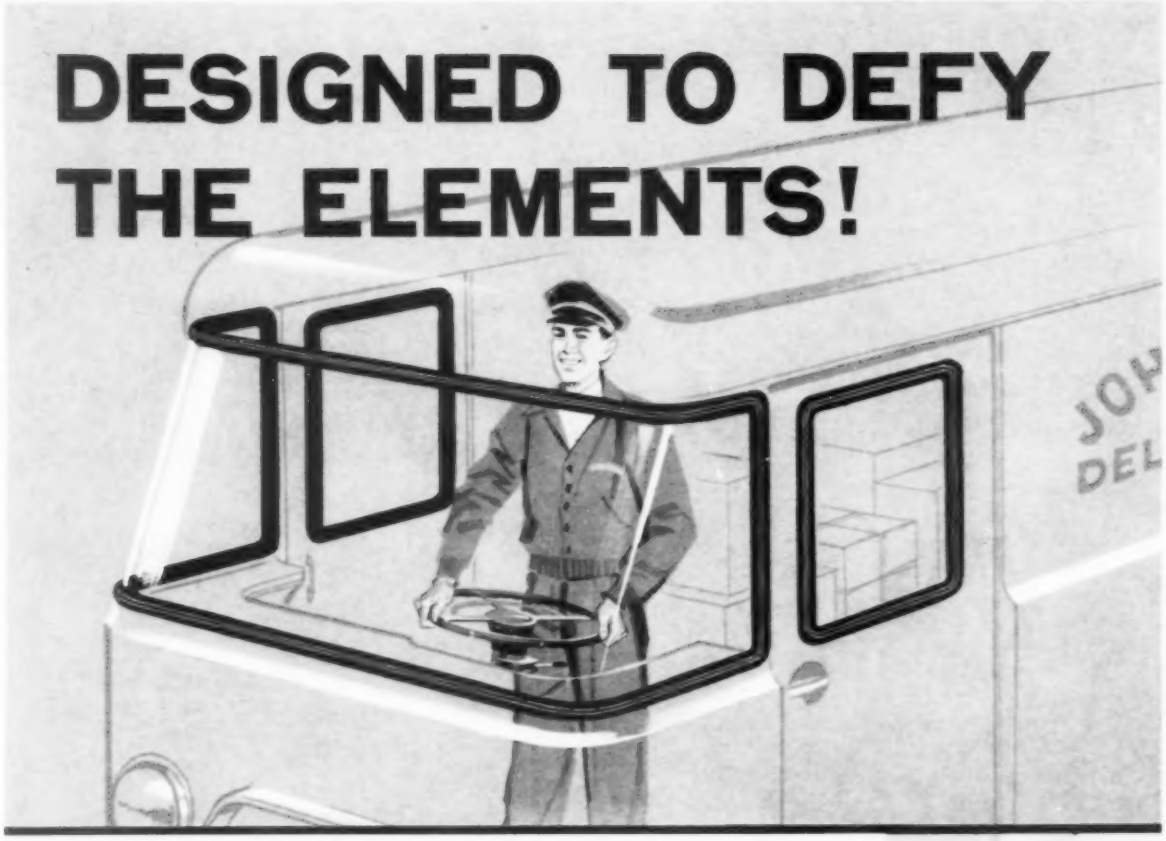
BODY MFGD. BY
KLEIN BODY CO. CLEVELAND, OHIO

This #2090 General Service Body made for the Ohio Edison Co. is an outstanding example of smooth, functional design, incorporating 2 each of 2 standard (E) items.

LONGRUN
TRUCK BODY HARDWARE BY
EBERHARD
THE MOST COMPLETE LINE AVAILABLE

Eberhard Mfg. Co., 2850 Tennyson Rd., Cleveland, O.

DESIGNED TO DEFY THE ELEMENTS!



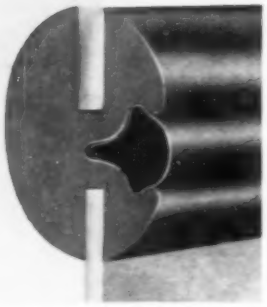
INLAND

Self-Sealing Weather Strip

No glass or plastic—flat or curved—will ever leak under any conditions *in any weather* when sealed with Inland Self-Sealing Weather Strip. What's more, Inland Self-Sealing Weather Strip is built to withstand shocks and vibrations even during extremes of weather with no effect on its weather-proof qualities.

Costs Less to Install . . . Less to Replace

One man can install or replace Inland Self-Sealing Weather Strip with a minimum of time, effort, and materials, and no special mounting surface, channels, moldings, cements or binders. Available in many standard shapes and sizes, or, can be made to your specifications for any installation or service requirement. Constant use under all weather extremes proves Inland Strip best for manufacturer, user, and service. Be sure! Simply design or specify Inland Self-Sealing Weather Strip. For more information, write, wire or phone.



IT'S PERMANENTLY LEAKPROOF IN 3 EASY STEPS

1. Body panel is fitted into strip.
2. Glass is fitted into the strip.
3. Over-Sized filler strip zips into locking channel, expanding and compressing entire strip into one permanent, leakproof seal.

INLAND MANUFACTURING DIVISION
General Motors Corporation • Dayton, Ohio

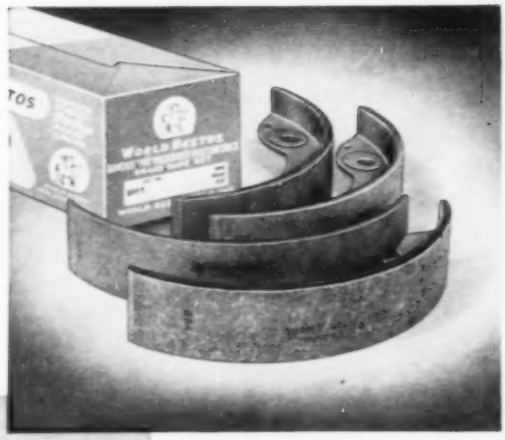
INLAND SELF-SEALING WEATHER STRIP IN *ACTION*

Transportation Industry | Railway Equipment | Marine Applications | Automotive Installations | Over-the-road Equipment | Commercial Structures

cut down on costly accidents

WORLD BESTOS "PFT" (Prescribed Friction Truck) brake lining sets were developed especially to assure Safe Stopping Power for Light and Medium Trucks

Ordinary brake lining can't stand up under the punishing stops, heavy loads and tight schedules of hard-driving, multi-stop service. But "*PFT*" sets give you safe, dependable stopping power at all times . . . because they're made up from *5 special friction formulas* developed by WORLD BESTOS *exclusively* for trucks and buses in this type of service. "*PFT*" brake lining sets give you *exactly* the *Right Combination* of friction qualities you need to keep your trucks out of the shop and on the job.



"PFT"—Prescribed Friction Truck—gives you . . .

Correct dry-mix formulation to withstand abusive service

Stabilized friction for fade control

Economy—longer lining life, reduced drum wear and maintenance time

Greater safety—that *extra* Stopping Power you need for repeated stops in hazardous traffic situations

"PFT" Bonded Shoe Sets come 4 pieces to a carton to equip one axle . . . cartons are clearly labeled for each type of truck and bus.

"PFT" is also available in single axle sets for riveting.

Get full details and prices . . . Call your WORLD BESTOS Distributor or write direct to WORLD BESTOS, New Castle, Indiana.

WORLD BESTOS NEW CASTLE INDIANA

VALVOLINE quality works for your fleet . . .

VALVOLINE 4

RESEARCH & DEVELOPMENT MAKES THE DIFFERENCE

Valvoline's quality Motor Oils and Lubricants have been adapted to the special needs of *your* fleet . . . the result of extensive research and development, both in the laboratory and many miles of road tests.

In order to constantly maintain Valvoline's more than ninety years of leadership, a modern Lubricant Test and Development Laboratory and an Engine Dynamometer Test Laboratory complete with engine rebuilding and photographic laboratory facilities have been continued for the benefits of fleets, large or small.

The problem of correct fleet lubrication . . . keeping your motor vehicles rolling on the highways . . . is one of the most important in the world today. Write for complete information about Valvoline's modern Motor Oils and Lubricants . . . that are best for *your* fleet.

VALVOLINE

OIL COMPANY • FREEDOM, PA.

Division of

Ashland Oil & Refining Company

Research Will Help Fleetmen . . .

. . . answer some foggy maintenance problems in the near future. The National Lubricating Grease Institute, and Chrysler Corp. are launching investigations to find out, in the first case, all about trends in lubricants, and in the second, about vehicle sounds and vibrations.

Trends in lubricants . . .

. . . will have been surveyed by mid-year, 1958, states R. Cubicciotti, president of NLGI. By that time, data from Institute members will have been tabulated and results from the first production survey will be known.

The majority of the Institute's domestic manufacturing members have agreed to participate and since NLGI represents an estimated 95% of the lubricating industry in the U. S., an accurate evaluation is expected.

Vehicle vibrations . . .

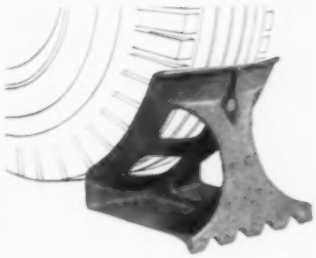
. . . and sounds are being researched in Chrysler laboratories with a built-in "electronic highway" and test rooms which give cars and trucks the scientific "shakes." These vibrations (as tiny as ten-thousandths of an inch) can then be pinpointed in the drive train and corrected.

Various methods are used. Engineers put cars and trucks—motionless—through road tests at simulated speeds up to 125 miles per hour on the "electronic highway." This test equipment is designed to duplicate electronically, nearly any outside driving condition, at all speeds and on all types of grades.

Also, two electromagnetic vibrators, each capable of exerting 200 lb of force and giving cars up to 500 shakes per second, aid in detailed studies of production and experimental parts. This information is invaluable in design of new frame components and chassis parts.

Closed circuit TV plays an important role in the sound and vibrations study. TV cameras are placed on the car's underbody so engineers can watch vibrations.

ANCHOR your Truck Fleet!



CASTEEL

HEAVY DUTY WB 15 Wheel Blocks

. . . hold SAFELY on any surface

The wide face area accommodates large tires. The broad flat base gives stability in soft terrain. Five ¾" angular calks, cast in rear of base, hold securely on ice, snow or concrete.

Sturdy brace supports are provided with a cast-in hole for chain or hook connection.

For other sizes and types of Safety Wheel Blocks, send for our Bulletin No. F-58.

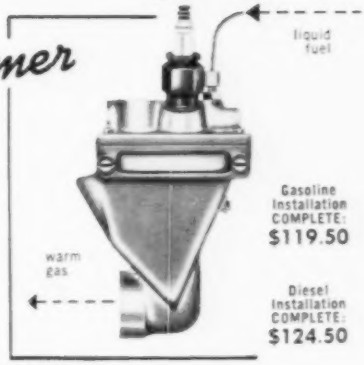
CALUMET STEEL CASTINGS CORP.
1836 SUMMER STREET HAMMOND, INDIANA

Instant
COLD WEATHER STARTING FOR GASOLINE AND DIESEL ENGINES!

REICHHELM
GASIFIER *primer*

Installed permanently as an auxiliary carburetor, the GASIFIER primer is a self-heat-generating unit which vaporizes liquid fuel*, blends it with air to form a combustible mixture, and distributes mixture evenly to cylinders.

*On gasoline engines GASIFIER uses regular fuel; on diesel, bulk ether or low grade priming fluids.



Gasoline Installation COMPLETE: $119.50

Diesel Installation COMPLETE: $124.50

GUARANTEED

Fast, Smooth, Certain Starting in Freezing and Sub-Freezing Temperatures. Prevents Engine, Piston and Ring Damage — Reduces Battery Wear, Oil Dilution. Eliminates Costly Pre-Heating Equipment and Hi-Volatility Fuels.
Portable GASIFIER primer Field Kit Also Available $249.50

JETOMATIC, Inc. **Wakelee Avenue, Ansonia, Connecticut**

For longest mileage
and maximum protection against blow outs...

NOW YOU CAN GET STEEL

in Firestone's New Heavy-Duty Transport

Steelcord® TRUCK TIRE

PIONEERED AND DEVELOPED THROUGH YEARS OF RESEARCH

64 MILES OF HIGH-TENSILE STEEL pack tremendous strength and stability into every STEELCORD tire—give it puncture- and impact-resistance no ordinary cord can.

STEEL FROM BEAD TO BEAD gives continuous, all-over protection. Reinforces critical sidewall and shoulder areas against curbing and cutting damage.

20% MORE MILEAGE in every STEELCORD. Already operator records show this heavy-duty conventional pressure tire gives as much as 130,000 miles on original treads.

40° COOLER RUNNING, because steel carries highway heat away as fast as treads can build it up. And STEELCORD can't "grow" to swell and crack the treads.

GET MORE RETREADS than conventional tires deliver for unlimited extra savings on STEELCORDS. The bead-to-bead steel body is virtually indestructible—can be capped again and again.

NOW ROLLING UP RECORDS in fast-moving truck and bus fleets—fleets that find the STEELCORD the safest, savingest truck tire on turnpikes today.

Enjoy the Voice of Firestone on ABC television every Monday evening.

Copyright 1958, The Firestone Tire & Rubber Company

Steelcord® by **Firestone**

BETTER RUBBER FROM START TO FINISH

In billions of miles of service, no Firestone STEELCORD tire has ever been known to blow out!

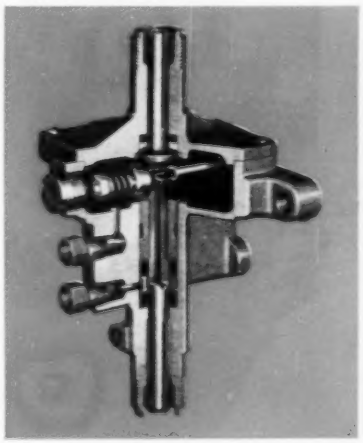
NOW—a truck governor that regulates road speed—not engine speed

For the first time, truck fleet operators can get accurate, predetermined economy results with all trucks by having all trucks operate at road speeds which have proven most economical. The new Holley roadspeed governor is driven relative to rear wheel speed instead of relative to engine speed. It can easily be calibrated for any truck gear ratio and has been successfully tested over thousands of miles of road conditions.

The Holley roadspeed governor can be used in conjunction with the engine speed governor. Thus, if the vehicle is running in one of the lower gears and the engine reaches its governed speed before reaching the predetermined mile per hour setting, the engine speed governor controls. In the event that road speed is reached prior to the engine rpm maximum setting, as in high gear, the roadspeed governor controls.

The roadspeed governor offers fleet operators a complete governing system designed to allow maximum horsepower under extreme load conditions and yet providing pinpoint control of road speed for maximum economy.

For more information on the Holley roadspeed governor, simply send a request on your letterhead.



The new Holley road speed governor, engineered to regulate actual road speed, is designed to eliminate mechanical trouble and prevent malfunctioning.

For more than half-a-century original equipment manufacturers for the automotive industry.

HOLLEY Carburetor Co. 11955 E. NINE MILE ROAD • WARREN, MICHIGAN

T-8

For Today's Most Complete Line of Quality

SPECIFY... **TIMKEN-DETROIT®**

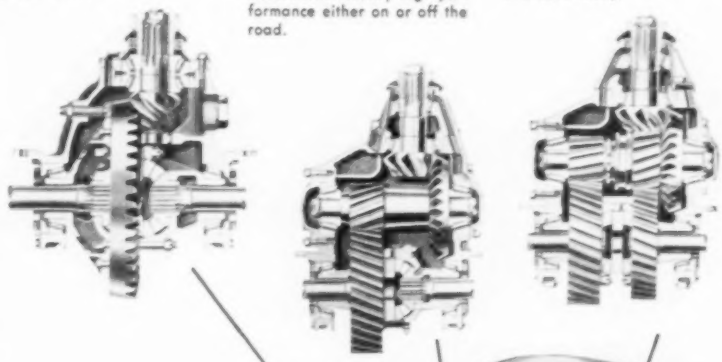
Whatever your requirements for highway or off-the-road equipment—Timken-Detroit offers you a full line of driving, trailer and front axles... brakes and gear boxes... backed by over 50 years of manufacturing experience and proved by field performance and laboratory testing.

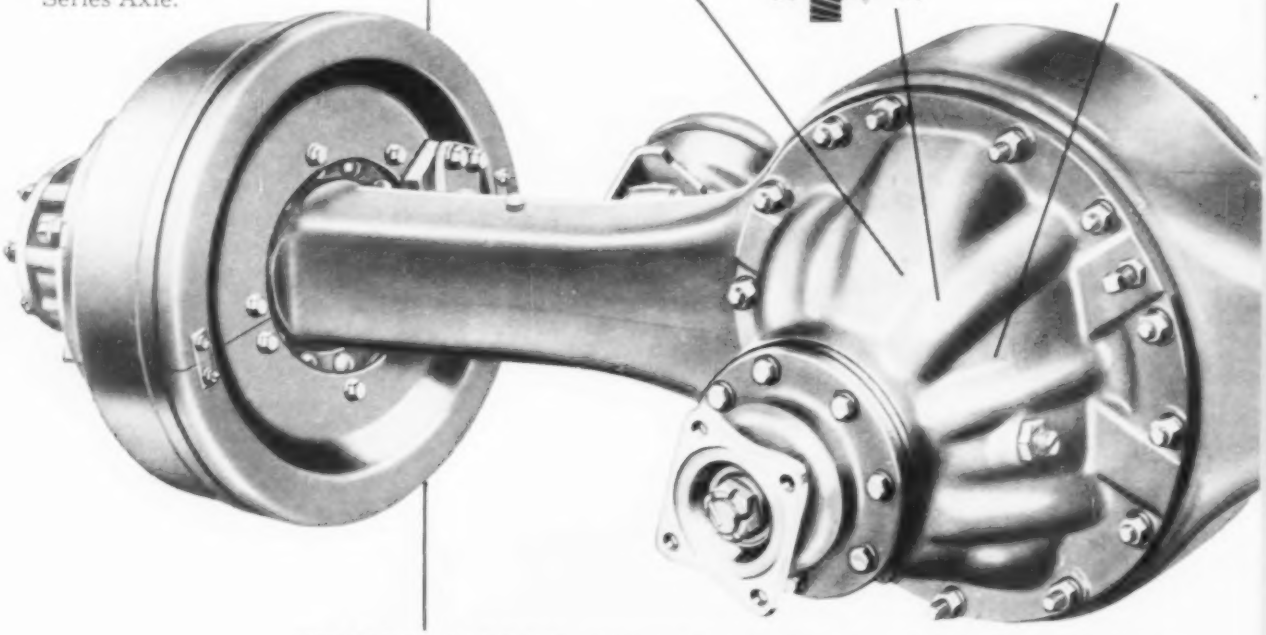
One example of the engineering features and superior quality built into *every* Timken-Detroit product is the improved "3 for 1" Letter Series Axle.

HYPOID SINGLE-REDUCTION!
A rugged single-speed power train that provides the very maximum in single reduction performance.

SINGLE-SPEED HYPOID-HELICAL DOUBLE-REDUCTION!
This advanced single-speed double-reduction final drive delivers consistently high performance either on or off the road.

2-SPEED HYPOID-HELICAL DOUBLE-REDUCTION!
This final drive gives you the most advanced two-speed double-reduction gearing available today.





WORLD'S LARGEST MANUFACTURER OF AXLES FOR TRUCKS,

Axles and Brakes for Commercial Vehicles

Products of Rockwell Spring and Axle Co.

IMPROVED TIMKEN-DETROIT "3 FOR 1" LETTER SERIES DRIVING AXLES WILL DO THE JOB BETTER THAN EVER BEFORE!

With the "3 for 1" you gain maximum interchangeability. You have your choice of three interchangeable final drives . . . using the same housing, hubs, drums, brakes and axle shafts. All parts are standard production items.

Timken-Detroit "3 for 1" Letter Series Driving Axles give you longer operating life . . . lower maintenance cost . . . smaller replacement parts inventory.

Check these "3 for 1" features:

Improved Hypoid Gears! Redesigned offset and increased Hypoid gear diameter provide longer gear life, smoother performance, and quieter operation.

Refined two-speed shift collar and cross shaft! Improved design gives positive locking action—reduces gear wear and maintenance. Each set of teeth performs but one function, driving or locking.

Improved torsion-flow axle shafts! More splines per shaft and increased root diameter give greater torsional strength, longer life.

Famous time-proved differential—rugged, reliable and smooth! Extra strong gear body and teeth, plus hot-forged trunnion, give long trouble-free operation even under the roughest kind of treatment.

Hot forged steel axle housing! The rectangular form of these high-carbon steel housings is the lightest, strongest shape of housing that is available today.

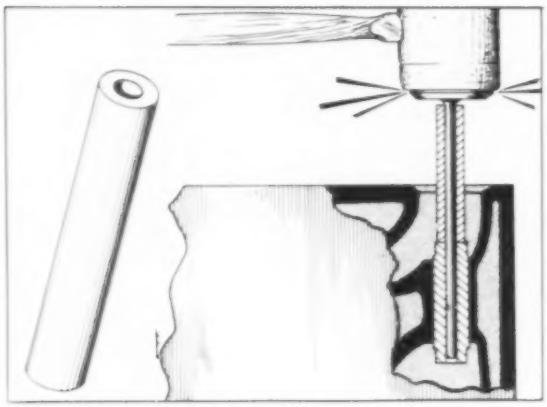
Improved "P" Series Power Brakes and "DH" Series Hydraulic Brakes! Available in a complete range of sizes, these advanced brakes offer the most dependable stopping power—lower maintenance cost—easy adjustment and longer service.

Plants at: Detroit, Michigan
Oshkosh, Wisconsin • Kenton and Newark, Ohio
New Castle, Pennsylvania

TIMKEN Detroit AXLES
TIMKEN-DETROIT AXLE DIVISION
ROCKWELL SPRING AND AXLE COMPANY
DETROIT 32, MICHIGAN
Accepted Standard

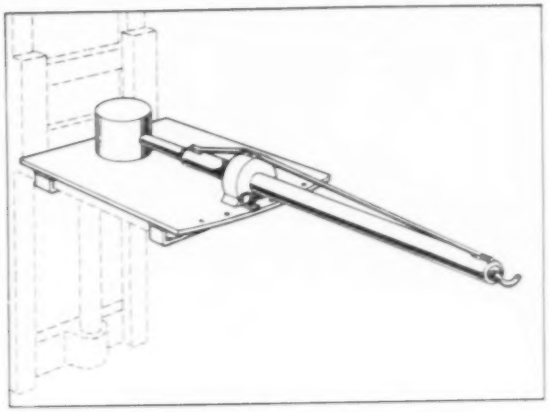
BUSSES AND TRAILERS

Shop Kinks: Eight Low-Cost Aids



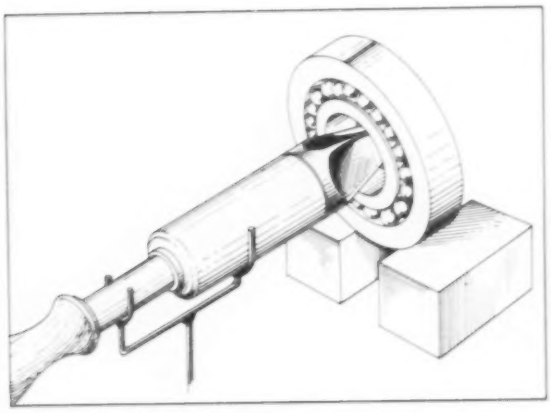
Worn valve guides . . .

. . . are easy to remove with this tool. And it can be used to install new guides too. Take a length of cold rolled steel and make it a knock-out tool by drilling it to take valve stem as shown above. Outside diameter of tool should be slightly less than that of valve guide. Insert a discarded valve through the tool and you're ready to go. Make sure that your knock-out tool is long enough for valve stem to project and act as a pilot so that valve guide will be driven true. Use a mallet or a "soft" hammer. *$10 to Stan Clark, Box 1262, East Bradenton, Fla.*



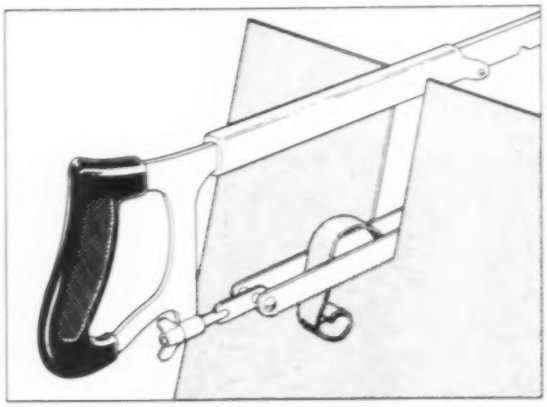
Fork lift attachment . . .

. . . converts your lift into a crane that can save you time on the job. Transmissions, cylinder heads, and other heavy objects are easy to handle with this shop-made device. The long arm or "boom" permits you to get into tight places. The steel base plate of the attachment is fitted with brackets to prevent it from shifting on the forks. The boom is mounted on the bed-plate so that it may be swung around in a horizontal plane, and a pin arrangement is used to lock it in the desired position. *$10 to Ed Amiot, San Francisco Municipal Railway, San Francisco, Calif.*



Ball bearings . . .

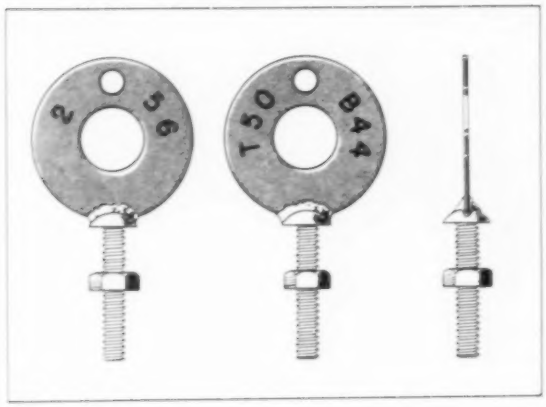
. . . can be fitted more easily to the shaft if they are first expanded slightly by heating. This permits them to slip onto shaft, eliminates need for the pounding which can damage bearing and shaft. One commonly used method is to immerse bearing in heated oil, but sometimes facilities for this are not available. You can get the same result by using a soldering iron and some blocks, as shown above. Arrange them so there is no actual contact between iron and bearing. This method will not damage bearing. *$10 to Clifford Bower, 25 Emlyn Rd., London, W. 12, England.*



Cutting sheet metal . . .

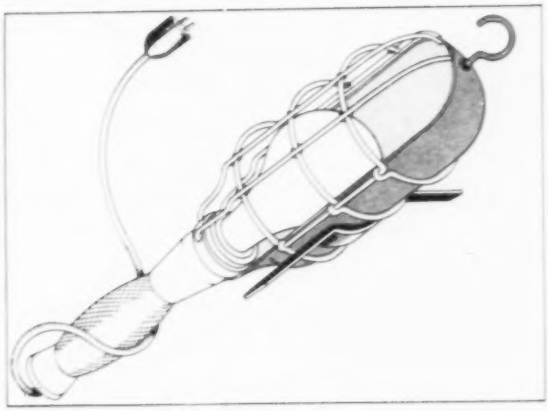
. . . with a hacksaw can present a problem, because usually there's not enough room for the frame to pass through the cut. This difficulty can be overcome by mounting two blades in the frame as shown in the drawing above. A short piece of old blade is used at each end of spacer assembly to attach it to the frame. When using this rig, two cuts are made simultaneously, and the strip between is rolled back as the cut progresses. This provides ample room for the frame. *$10 to W. F. Roeder, Division of Sanitation, Government of the District of Columbia, Washington, D.C.*

That Can Give You New PM Speed



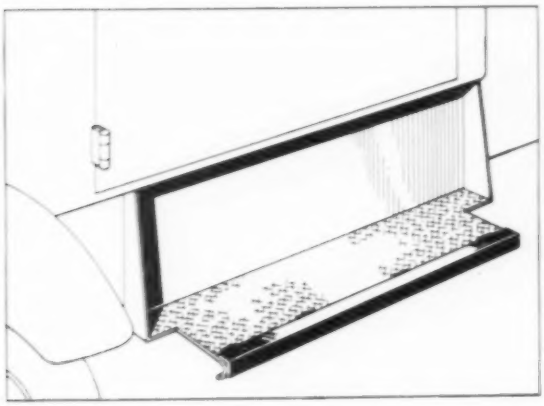
Thread-gage set . . .

. . . is especially handy when working with small-diameter machine screws. To make this set, assemble a group of brass screws and washers in the sizes desired and solder the washers to the screw heads as shown. Stamp the appropriate drill and tap-size information on one side of washers, thread-size on the other. Drill a hole in each washer, same diameter as the screw. String them all on a bead-link chain long enough so that they may be used without taking them off the chain. They can also double as depth gages. *$10 to Norman P. Tyler, 714 Roland Drive, Norfolk, Va.*



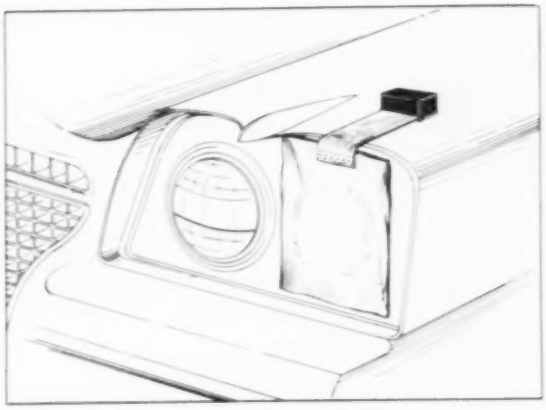
Drop-light won't roll . . .

. . . when it's modified this way. It's always annoying to have to prevent a drop-light from rolling around when you're trying to work. And if it breaks, you waste still more time replacing the bulb. Here's how to prevent this: just take a piece of sheet metal or rod and solder it in place as shown above. Then, when you put the light down, it will stay put. (Editor's Note: A rolling light is not only annoying, it can be dangerous too. Fires have been started by drop-lights falling and breaking around flammable materials.) *$10 to Elmer Shirey, Ft. Wayne, Ind.*



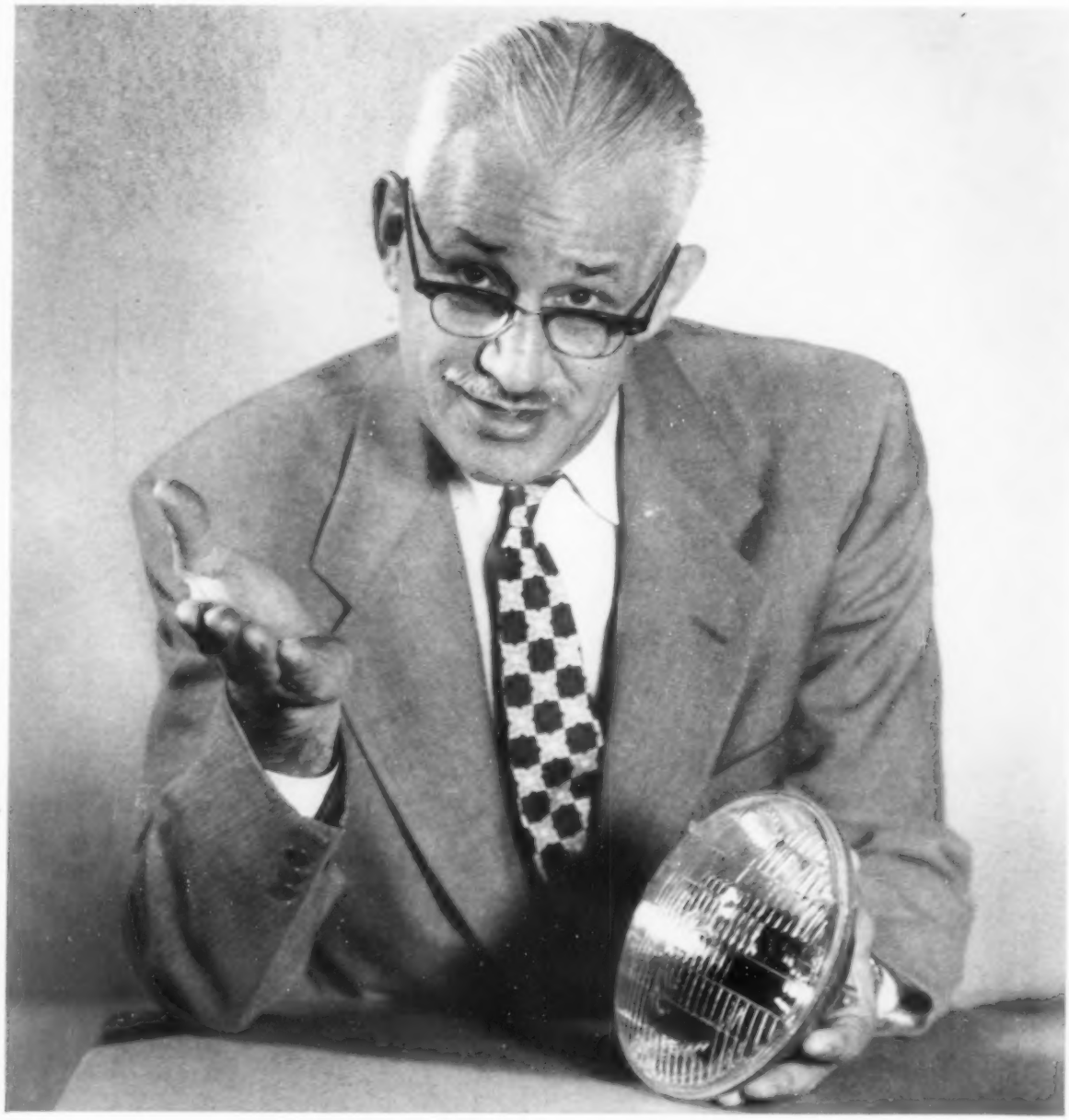
Safety edge . . .

. . . for running board can prevent accidents. Most trucks and tractors have running boards of diamond-tread plate or similar material and more often than not, the edge is rolled. This rounded edge is frequently a safety hazard—especially when the surface is wet. Here's an easy way to prevent such accidents. Just take a piece of angle iron of suitable length and width and weld it in place as shown in sketch. (Editor's Note: This takes care of the rounded edge. Now, a coat of non-skid paint should complete the job.) *$10 to Preston R. Coleman, 128 Wayne Avenue, Norristown, Pa.*



New dual headlights . . .

. . . have to be adjusted independently of each other. This means that one light has to be "blacked out" in some way so it will not interfere while adjustments are being made on the other. Here's an easy way to do it. Just take a piece of heavy cloth and cut it to suitable shape and hang it over the light as shown in sketch. Attach a magnet to the end of the cloth. This will keep it in place on the fender. It won't scratch if you attach it so that there's cloth between the magnet and the fender. *$10 to Leo A. Provost, Tose Incorporated, Jersey City, N.J.*



"Just this once," begged the ad manager, "Let's not show a picture of a truck!"

"But this is a *truck* ad," we argued. "Everybody has a picture of a *truck* in a *truck* ad!"

"I like trucks," he explained, "but I'm not selling them ...I'm selling General Electric *All-Weather* Headlamps."

"You know, headlamps are *not* all alike," he said as he picked up a G-E *All-Weather* Headlamp, "if you hold it just right, you can see that the shield over the lower beam filament is separately mounted on its own rod. It doesn't *touch* the lead-in wires, it has a more secure grip and makes for greater positioning accuracy."

"See these Aim-Right Gizmoes?" he asked, as he ran his finger over one of the glass pads on the lens. "They are molded right into the glass. They hug the surface . . . and they're *smooth!* They make aiming easier and more accurate."

Then he turned the headlamp sideways, "Take a look at the profile of this G-E *All-Weather* Headlamp . . . see how the glass lens and the glass reflector are fused together? The thickness is uniform all around the rim. This makes the retaining ring fit tightly."

"Just tell 'em that!"

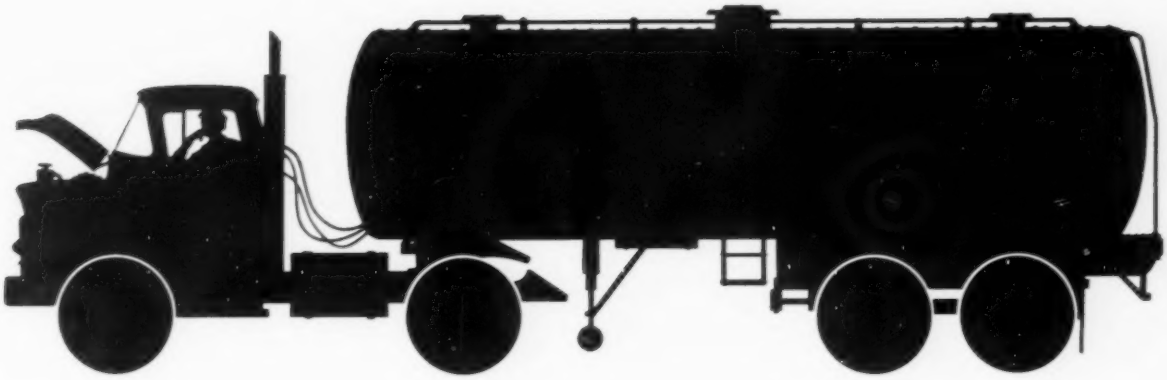
So we did!

General Electric Co., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio.

Progress Is Our Most Important Product

GENERAL ELECTRIC

Casey's sittin' in his cab with his orders in his hand—



and he will never make up for the time he's losing over a dead battery. Play safe with a Delco Extra-Duty . . . quality built to offer lowest cost per mile of operation!

Little did Casey suspect that his truck battery would go dead and turn profit to loss. But there he sat, an unnecessary example of why it pays to choose the battery that can take it and bounce back for more—the Delco Extra-Duty. It's the No. 1 battery among truckers; for in addition to dependable service, it gives the lowest possible cost per mile of operation.

Here are savings you can see whether you've one truck or a hundred. Here also is a warranty backed by General Motors and Delco—good in the U.S. and Canada. It was written *after* the endurance of this extra tough battery was established at the General Motors Proving Grounds. So you can believe what it says . . . you can avoid being a Casey sittin' by the roadside with your profits down.

Whatever your preference . . . wet or dry charge . . . play it safe, play it economically with Delco Extra-Duty Batteries—available everywhere.

Quality built by Delco-Remy

available everywhere through independent distributors

associated with . . .

GM U-M-S PARTS SALES UNITED MOTORS SYSTEM

ON CBS TV—"High Adventure with Lowell Thomas" • ON CBS RADIO—Lowell Thomas Newscast

Set for the Big Move!

A new set of ACs can save many times their cost in gasoline!

More and more fleet operators are making the big move to AC—discovering new fuel economy with new AC Hot Tip Spark Plugs!

Word is getting around among owners and drivers alike that AC's exclusive Hot Tip feature burns away carbon and oil deposits, gives ACs an anti-fouling action. More efficient fuel combustion means more important gasoline savings—savings which mount up with every passing mile.

Install new AC Hot Tip Spark Plugs in your trucks and start saving now!

AC SPARK PLUG ✿ THE ELECTRONICS DIVISION OF GENERAL MOTORS

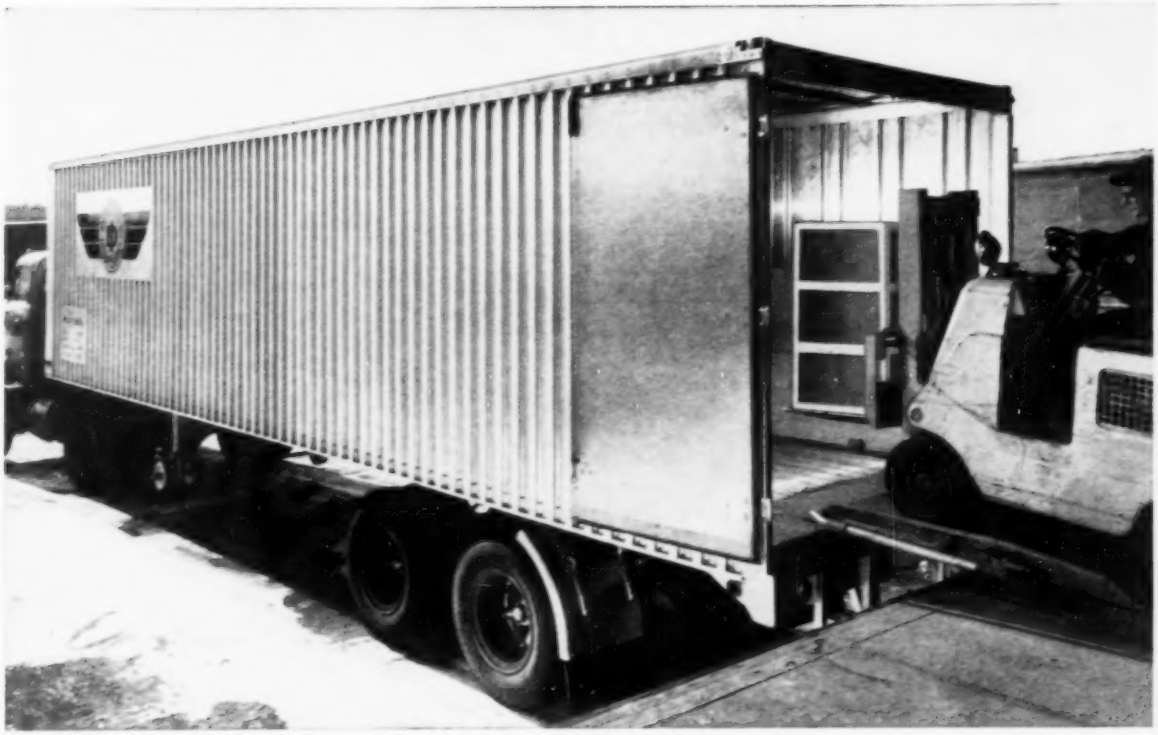
Watch Walt Disney Studios' ZORRO every week on ABC-TV

ACTION *starts with*

AC

HOT TIP
SPARK PLUGS

Here's what Dayton Thorobred Tires mean to you!



One Tandem Trailer

BOUGHT WITH EXTRA PROFITS

EXTRA PAYLOAD PROFIT you'd earn from just 16 tandem tractor trailers equipped with Dayton Thorobred Tires could pay for a new trailer like the one above *in just one year!*

Running average mileage in a year sixteen rigs would earn $7,500 in Extra Payload Profit — enough to pay for a new trailer to haul even more full-profit cargo.*

With lighter Dayton Thorobreds you not only increase payload profits . . . you also get lower cost per mile. Tremendously strong 8-Ply (12-Ply Rating) Super Cordura Construction eliminates excess, heavy, heat-producing bulk so your Thorobreds run cooler, last longer and take recap after recap.

Call your Dayton Distributor today for a rundown on what Dayton Thorobred Tires will mean to you in Extra Payload Profits and lower costs. To be sure your new vehicles give you maximum payload right from the first mile on, specify Dayton Thorobreds when you order.

*Figures will be sent on request. Write The Dayton Rubber Co., Tire Div., Dayton 1, Ohio.

A Complete Line of Truck and Passenger Car Tires in Nylon, Super Cordura and Rayon

Dayton Thorobred Tires

Coming Events for Fleetmen . .

IF YOU'RE RUNNING a meeting and want others to attend, send a notice to Coming Events Editor, FLEET OWNER, 330 W. 42nd St., New York 36, N.Y.

A suggestion if you expect to attend a meeting listed below: Some times there are last-minute changes in date or location that we cannot publish. So it's wise to check with association or convention secretaries before you make your final plans.

FEBRUARY 1958

6 Illinois Bus Assn. 33rd Annual Meeting, Congress Hotel, Chicago, Ill.

18-19 Motor & Equipment Assn. National Convention Registration, Statler Hotel, Los Angeles, Calif.

MARCH 1958

3-5 Association of Highway Officials, North Atlantic States, Statler Hotel, Baltimore, Md.

6-8 Mississippi Valey Highway Officials, Edgewater Beach Hotel, Chicago, Ill.

20-22 Colorado Motor Carriers Assn., Annual Meeting, Hotel Broadmoor, Colorado Springs, Colo.

APRIL 1958

2-3 New England Bus Assn., Annual Meeting, Sheraton-Biltmore Hotel, Providence, Rhode Island.

5-13 International Automotive Show, New York Coliseum, New York, N. Y.

13-16 Customer Relations Council Annual Spring Meeting, Balmoral Hotel, Miami Beach, Fla.

14-17 American Society of Mechanical Engineers, Annual Design Engineering Show, International Amphitheatre, Chicago, Ill.

15-17 Annual American Welding Society Show, Kiel Auditorium, St. Louis.

25-27 New Jersey Motor Truck Association Convention, Hotel Berkeley Carteret, Asbury Park, N. J.

27-30 United States Chamber of Commerce, 36th Annual Meeting, Hotel Reservation Office, 1616 K Street, N. W. Washington, D. C.

MAY 1958

4-8 The Operations Council (ATA) Spring Meeting, Jung Hotel, New Orleans, La.

5-9 American Society of Training Directors, 14th Annual Conference, Sheraton-Park Hotel, Washington, D. C.

6-8 Seventh Highway Transportation Congress, Hotel Mayflower, Washington, D. C.

13-16 Council of Safety Supervisors Annual Meeting, Hotel Cleveland, Cleveland, Ohio.

18-22 National Accounting & Finance Council Annual Meeting, Statler-Hilton Hotel, Dallas, Texas.

26-30 American Management Association, National Packaging Exposition, Coliseum, New York City, N. Y.

JUNE 1958

3-5 National Parking Assn. Meeting, Sheraton Cadillac Hotel, Detroit.

9-12 National Materials Handling Exposition, Public Auditorium, Cleveland, Ohio.

9-12 American Society of Mechanical Engineers, National Conference on Materials Handling, Public Auditorium, Cleveland, Ohio.

11-13 Regular Common Carrier Conference, Board of Governors Meeting, Wentworth-by-the-Sea, Portsmouth, N. H.

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Handiest and Speediest Stainless Steel Hose Clamps

COLLARED SCREW HEAD
Gives positive turning.
Prevents screw driver slippage.

DEEP-SLOTTED SCREW HEAD
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- ★ Patented one-piece housing *spot-welded* to band . . . fused for greater strength.
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- ★ Narrower, but heavier, band for greater flexibility and leakproof sealing.
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Courses for management, supervisors and maintenance men—here's where you'll find the time and the place.

FEBRUARY 1958

5-May 21 Accident Prevention for Motor Vehicle Fleets, Center for Safety Education, 6 Washington Square-North, New York 3, N. Y.

12 Effective Fleet Operation Course, Syracuse University, Syracuse, N. Y.

13 Effective Fleet Operation Course, Purdue University, Lafayette, Ind.

17-21 Fleet Supervisor Course, University of Virginia, Richmond, Va.

18 Effective Fleet Operation Course, University of Mississippi, Jackson, Miss.

19-May 7 Effective Fleet Supervision Course, Syracuse University, Syracuse 10, N. Y.

24 Effective Fleet Operation Course, Northwestern University, Evanston, Ill.

24 Effective Fleet Operation Course, Pennsylvania State University, Pittsburgh, Pa.

25 Effective Fleet Operation Course, Pennsylvania State University, New Castle, Pa.

25-27 Freight Terminal Management Course, Public Safety Institute, Purdue University, Lafayette, Ind.

25-27 Efficient Terminal Management Course, Pennsylvania State University, University Park, Pa.

26 Effective Fleet Operation Course, Pennsylvania State University, Erie, Pa.

26-28 Efficient Terminal Management Course, Purdue University, Lafayette, Ind.

MARCH 1958

3-7 Maintenance Course, Ontario Safety League, Toronto, Can.

3-7 Fleet Supervisor Course, University of Nebraska, Lincoln, Neb.

3-21 Traffic engineers seminar, Traffic Institute, Northwestern University, Evanston, Ill.

5 Efficient Terminal Management Course, University of Kansas, Kansas City, Kan.

10-14 Maintenance Course, University of Florida, Gainesville, Fla.

12 Efficient Terminal Management Course, University of Kansas, Kansas City.

17-21 Maintenance Course, Montana Motor Transport Assoc., Billings, Mont.

17-21 Fleet Supervisor Course, University of Oklahoma, Norman, Okla.

19 Efficient Terminal Management Course, University of Kansas, Kansas City.

23-28 Executive Training Course, New York University, New York, N. Y.

24-28 Fleet Supervisor Course, University of Maryland, College Park, Md.

24-25 Fleet Supervisor Course, University of California, Los Angeles, Calif.

26-28 Maintenance Course, University of California, Los Angeles, Calif.

31-Apr. 4 Maintenance Course, University of California, Richmond, Calif.

31-Apr. 1 Fleet Supervisor Course, University of California, Berkeley, Calif.

APRIL 1958

2-4 Maintenance Course, University of California, Richmond, Calif.

7-11 Fleet Supervisor Course, Oregon State College, Portland, Oregon.

14-18 Fleet Supervisor Course, University of Washington, Seattle, Wash.

21-25 Fleet Supervisor Course, Northeastern University, Boston, Mass.

21-25 Trainers of Commercial Drivers Course, Ontario Safety League, Toronto, Can.

22 Maintenance Course, University of Kansas, Lawrence, Kansas.

28-May 3 Maintenance Course, Pennsylvania State University, University Park, Pa.

30-May 1 Advanced Techniques Conference, Pennsylvania State University, University Park, Pa.

MAY 1958

5-16 Traffic Officers Training School, Pennsylvania State University, University Park, Pa.

14-15 Motor Fleet Supervisor Training Workshop in Advanced Technique, Pennsylvania State University, University Park, Pa.

20-22 Trainers of Commercial Drivers Course, University of Kansas, Lawrence, Kansas.

21 Top Management Conference, Purdue University, Lafayette, Ind.

JUNE 1958

2-6 Fleet Supervisor Course, Northwestern University, Evanston, Ill.

5-6 Top Management Conference, Pennsylvania State University, University Park, Pa.

Aeroquip
CARGO CONTROL

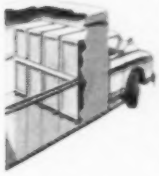
Cuts Cargo Damage On Everything

from Bakery Trucks

Ralphs Grocery Co. needed extra heavy-duty equipment to secure stacks of loaded bread trays in transit. General Logistics recommended its aluminum aircraft track and aircraft cargo ring fittings with strength up to 5000 lbs.

To Satellite Tracking Camera

To move the earth satellite tracking camera 816 miles, Bekins Van Lines Company secured all parts with heavy-duty (up to 3500 lbs.) Tension-Locking WEBLOCK Strap Assemblies that tighten with a pull . . . release with fingertip pressure.



General Logistics Truck Cargo Control System is simple, versatile. Steel or aluminum notched track is installed inside truck or trailer. TRACKLOCK end fittings attach WEBLOCK Strap Assemblies . . . spring-loaded end fittings attach steel shoring bars . . . quickly, easily.

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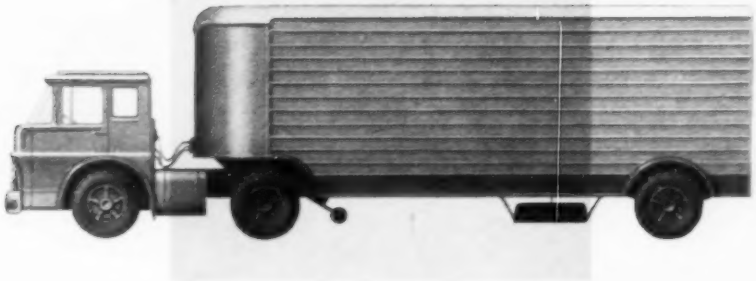
Standard Oil research develops new motor oil formula,
gives more heavy-duty protection

NEW

STANOLUBE

prevents
bronze wrist-pin bushing corrosion
in
severe service



Researchers at Standard Oil have developed new formulas for STANOLUBE Motor Oils. These new motor oils now eliminate corrosion of bronze wrist-pin bushings. This is another example of how research keeps STANOLUBE Motor Oils ahead of the demands imposed on lube oils by the newer, higher horsepower engines.

Laboratory and field tests prove that new STANOLUBE Motor Oils have superior resistance to deterioration caused by bronze and other copper alloys. They retain their ability to protect against oxidation and wear. They also protect against both ring sticking and cam follower wear.

STANOLUBE Motor Oils provide superior service over a wide range of operating conditions. They are refined from highest-quality base stocks. Special additives developed by Standard Oil research retard oil oxidation, minimize formation of piston and ring deposits, prevent formation of excessive varnish and sludge, and prevent corrosive attack on bearing metals.

Give your equipment this extra protection. Get the facts about STANOLUBE Motor Oils from your Standard Oil automotive lubrication specialist. There's one near you in any of the 15 Midwest or Rocky Mountain states. Or write **Standard Oil Company (Indiana), 910 South Michigan Ave., Chicago 80, Illinois.**

Quick facts about

STANOLUBE Motor Oil

- Refined from highest-quality, solvent-extracted base stocks.
- Contain special additives that prevent bearing and bronze wrist-pin bushing corrosion, reduce piston ring varnish and keep rings free to seal against blow-by.
- Contain still other additives that reduce wear on heavily stressed parts.

You expect more from STANDARD and get it!

Preferred

by more engine manufacturers
for original equipment
and replacement service
than any other piston ring!

WHITE—one of the leading engine manufacturers using Perfect Circle chrome rings for both original equipment and replacement service.

Behind the world-wide preference for Perfect Circle is a history of more than half a century of PC engineering leadership—and more. There's a history, too, of unceasing creative research... a constant search for the new and the better... matchless manufacturing skills...and scores of contributions to the forward march of the automotive industry, year after year.

You benefit with Perfect Circle's leadership in engineering, research and manufacturing skills when you use PC rings in your engine overhauls. You get lower maintenance costs because PC 2-in-1 Chrome piston rings more than *double* the life of cylinders, pistons and rings. Longer engine life, more miles between engine overhauls with sustained power and lasting oil economy are assured with PC 2-in-1 Chrome sets... Perfect Circle Corporation, Hagerstown, Ind.; The Perfect Circle Co., Ltd., 888 Don Mills Road, Don Mills, Ontario.

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PERFECT CIRCLE PISTON RINGS

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YOUR PERSONAL BUSINESS

Specially selected and edited for fleet owners from BUSINESS WEEK, a McGraw-Hill publication

FLEET MANAGEMENT

You'll be hearing a lot more about condemnation of private property in the next few years, as the 41,000-mi national highway program picks up speed. You may even find yourself involved in a condemnation proceeding. Before that happens, you may want to know something about the procedure—and some special federal tax rules that apply.

The routine varies, but, generally, you follow these main steps when a state or local government condemns your land:

- **First you get a formal condemnation notice.** The "public purpose" for which your land is needed will be explained, and you'll be alerted that a court (or special tribunal) hearing will be held on a certain date—probably within two or three weeks. (At this point, if you anticipate trouble, you'll want to call in an attorney.)

- **At the hearing, you'll have an opportunity** to avoid the condemnation by showing that no valid "public purpose" exists. Chances of this happening, though, are slim. Usually the court will approve the condemnation, and you'll be asked by the condemning agency to discuss compensation.

- **A price will be offered by the agency**—subject to some informal bargaining on your part. If you refuse the final offer, you'll be asked to appear at another court hearing—probably within two or three months.

- **The second hearing will determine property values,** often with the aid of court-appointed appraisers. The condemning agency, of course, will call in real estate experts to support its case—and you'll have a full opportunity to do the same. Here's where careful groundwork laid by a skilled condemnation attorney can prove valuable.

- **Appeal is possible,** but generally you have little chance of upsetting a lower court's final determination of value.

If the value finally settled upon leaves you with a profit, you would, of course, be subject to a capital gains tax—maximum rate 25%. However, you can sidestep this tax if you use the proceeds to buy another house within a year following the year of sale. The second house must cost at least as much as what you received for the old.

If your net proceeds are $60,000, for example, and your profit is $10,000, you pay no tax if the new house costs $60,000 or more. But if the new house costs just $55,000, you would report a gain of $5,000.

If you find that you can't suitably replace the condemned property within one year following the year of sale, you can write to the Treasury and ask for more time. Usually, you'll get a "reasonable" extension—maybe one month, maybe six months. There's no close rule on this.

The time limit itself works both ways. You may find a good "buy" long before your old property officially is condemned. If this happens, the Treasury will let you make your new investment in advance, but the new property must still be in your name, unsold, on the date of condemnation. Just advancing money to contractors for a new house isn't enough. You must have a finished building. Occupancy, though, isn't necessary.

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YOUR PERSONAL BUSINESS

Specially selected and edited for fleet owners from BUSINESS WEEK, a McGraw-Hill publication

Continued from preceding page

There's a strict rule on replacement of business property that sometimes causes trouble for the owner. Say you own an apartment house, for investment, and it's condemned. You'll lose your exemption from tax on the gain if you replace it (even within the time limit) with, say, a rental garage. The replacement property—and this would include a single residence, if rented—must be "similar in use."

If just a strip of your land is condemned, usually you get a total award that actually amounts to: (1) compensation for the condemned part, and (2) "severance damage" to the part remaining. Here your best bet is to have the award clearly split into the two parts, as a matter of record. This way, you avoid any chance of being taxed on severance damage—and pay tax only on any profit realized from the condemned strip.

But there's a drawback to keep in mind: Your severance damage reduces the cost basis of your remaining property (for tax purposes)—so if you sell in the future, you're apt to have a higher capital gains tax.

Condemnation may produce a loss, not a profit. Here you run into a tough tax rule if the condemned property is your personal residence. You can't deduct the loss, as in a casualty loss from fire, flood, storm, etc. But you can deduct the loss if it's income-producing property.

If you're a do-it-yourself fan, you may want to think about renting tools this spring for jobs around home—things that take special equipment too expensive to buy, but indispensable for big jobs.

It's easy to rent a great variety of gadgets and machines by day, week, or month from tool-rental companies. You can get almost anything from a concrete mixer to hand-size gun stapler. You may even want to buy the equipment, once you've tried it. All you do is sign a rental form, and sometimes pay a small deposit if it's an easy-to-break item. If you don't know how to operate it, they'll show you, but some companies ask you to sign a "waiver of liability" in case of injury.

Rental rates vary around the country—but here are a few averages (per day): floor sander—$4.50; floor edger—$2.50; electric saw (6-in.)—$3; wallpaper steamer—$3; caulking gun—50c; stapling gun—$1; electric hammer—$7; electric post-hole digger—$4.50; concrete mixer—$8; portable generator—$13; heavy-duty vacuum cleaner—$4.50.

If you do make a rental deal for some tools, make sure you're covered by insurance in case of accident. Many rental companies carry product liability (defective tool) insurance. But it's wise to check your personal policies to be sure you're protected. A "personal property floater" will cover rental equipment in case of theft or fire, but not if it's damaged by negligent operation or handling. A "comprehensive personal liability policy" covers an injury to a third person—but not to your family. A "blanket medical expense policy" covers any injury to you.

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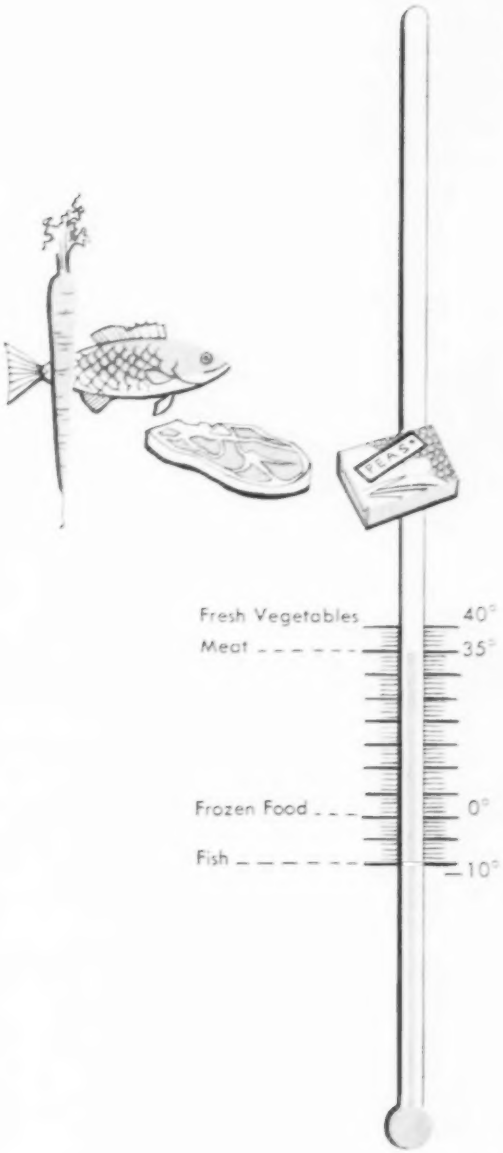
Some like it fresh... some like it cold



Some foods, like fresh vegetables, need a constant 40° to 60° F., to arrive at destination in prime condition. Fresh-caught frozen fish and other packaged frozen cargoes require zero to −20° F. But temperature variations are stock-in-trade to TROPIC-AIRE–CARRIER reefer equipment. A simple twist of the convenient thermostat control dial gives you the exact temperature essential for the cargo, whether crisping cool or sub-zero cold. With America's newest reefer, you'll find the three factors most important to superior refrigeration: plenty of *power*, absolute *dependability*, and immediate *accessibility* for servicing. Equip *your* fleet with TROPIC-AIRE–CARRIER refrigeration!

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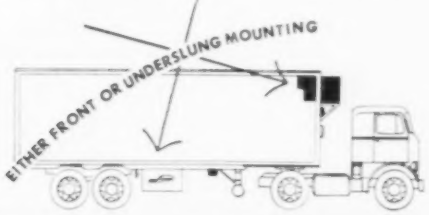

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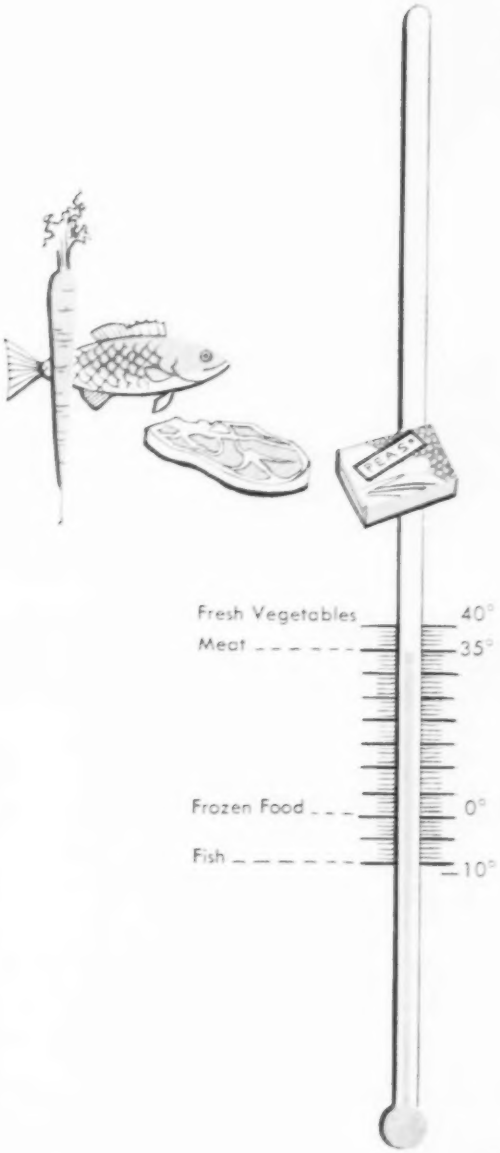
Some like it fresh... some like it cold



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Carrier

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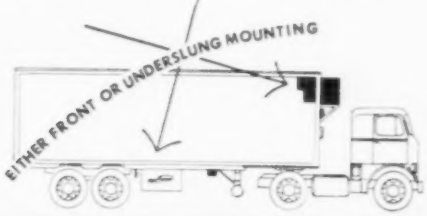

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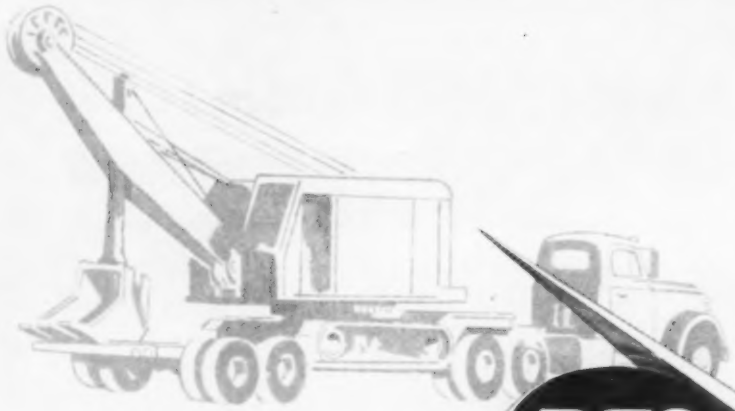
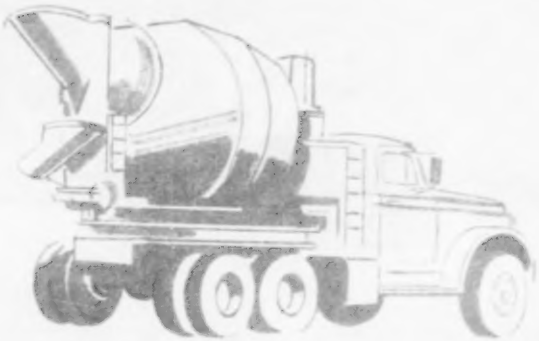


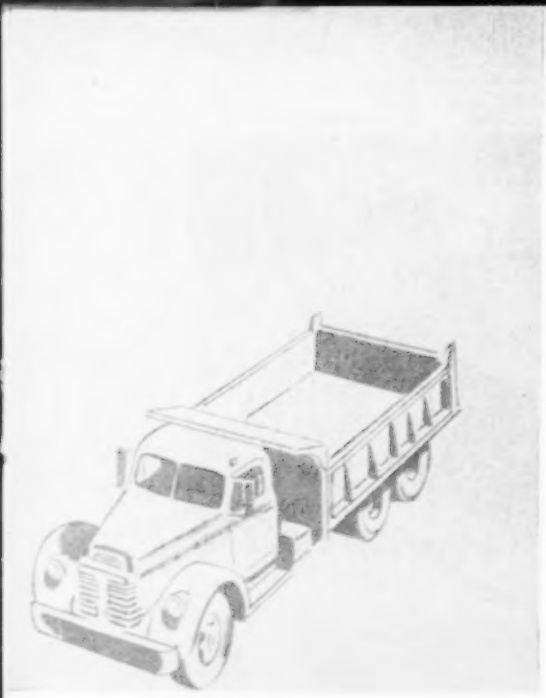
REO

GOLD COMET SIX

beneath

is the heart of the truck!

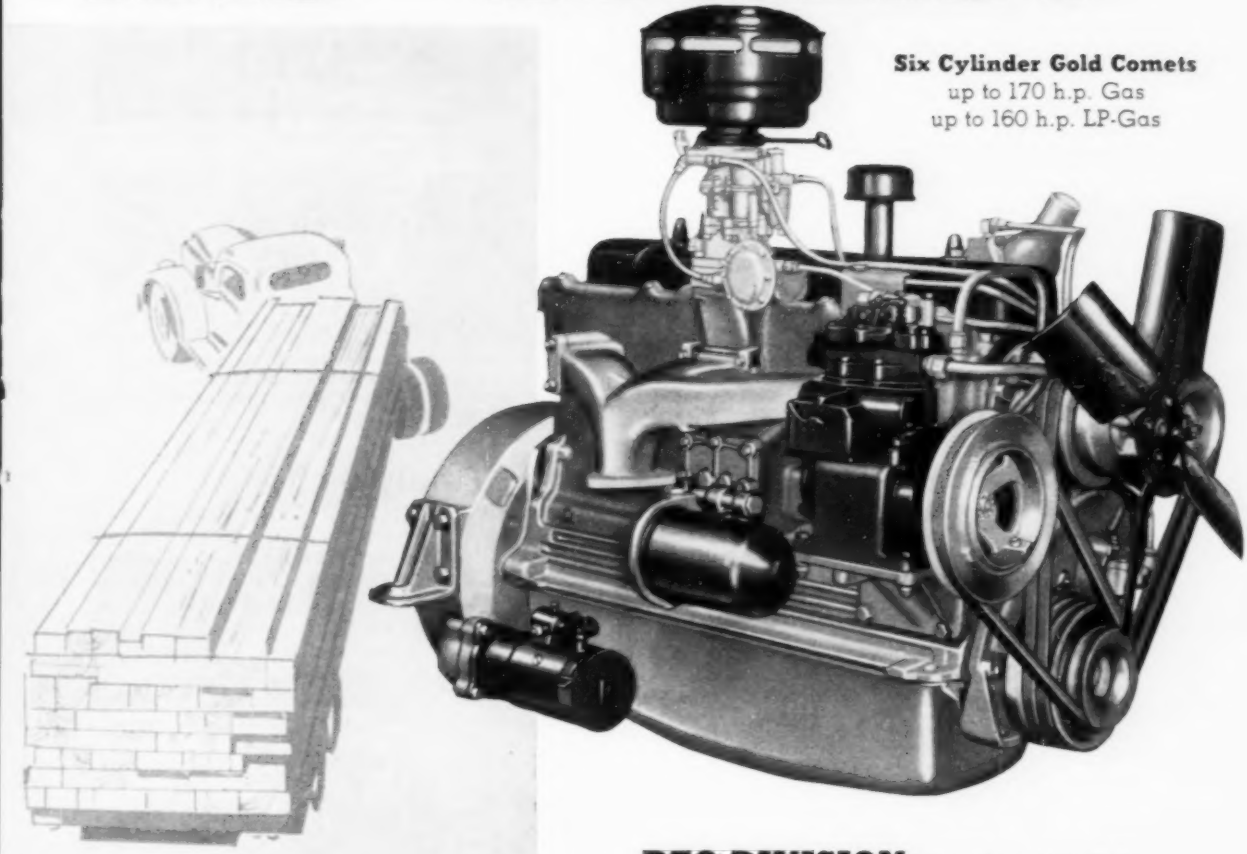




No matter how you slice it—it's power at the wheels that counts. And you get it with a Reo Gold Comet OH-170. This "big-load hustling" engine combines *straight six economy with V-8 responsiveness* to give you the most efficient six cylinder engine in its class. Its "wet-sleeve" design and other advanced Reo exclusive features cut downtime and overhaul costs in half.

For "cost of power to the wheels", there is nothing comparable on the road. And Reo can prove it. So ask your Reo salesman for a demonstration. There's a Reo Gold Comet Six engine for trucks of any make.

the "bonnet"



Six Cylinder Gold Comets
up to 170 h.p. Gas
up to 160 h.p. LP-Gas

REO DIVISION LANSING 20, MICHIGAN
THE WHITE MOTOR COMPANY

The Equipment Superintendent of the Ohio Turnpike shows how easily the test is made.

A toll gate on Ohio Turnpike . . . one of America's newest highways.

The simple test reveals many things about a vehicle's engine, and individual cards give a permanent record. The Indicator Fluid is covered by Patent No. 2,770,530.

OHIO TURNPIKE REPORTS:

"Greater oil economy . . . reduced maintenance costs . . . thanks to the SHELL ADC Oilprint Analysis."

THE OHIO TURNPIKE operates 225 maintenance and patrol vehicles over its new highway to assure *maximum road safety*. The Shell ADC* Oilprint Analysis was recently adopted so that the oil in every vehicle in the fleet can be constantly checked.

With just two drops of oil, the ADC Oilprint Analysis gives a fast, periodic, on-the-spot check of existing oil conditions. Unnecessary oil changes are eliminated, and in addition, costly engine repairs can be avoided when potential engine trouble is revealed. All this is accomplished *in just a few minutes.*

Let a Shell Representative demonstrate the simple application of this program. You'll see for yourself why cost-conscious fleet operators are proving the Shell ADC Oilprint Analysis a valuable preventive maintenance tool. *Trademark

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SHELL

New HEAVY-DUTY INTERNATIONAL V-8's

TRUE TRUCK TORQUE
TRUE TRUCK ECONOMY

Greater Gasoline Economy

All-Truck INTERNATIONAL heavy-duty V-8 engines with *True Truck Torque* combine short stroke with low engine rpm. The result: less engine friction and drag. More working power is released *from* the engine, less gasoline is required to maintain it.

More Usable Power at the Wheels

Efficient engine power doesn't pay off until it reaches the wheels. Heavy-duty INTERNATIONAL V-8 Truck transmissions and axle ratios convert low engine rpm into extra-payload hauling power at the wheels where it counts. That's *True Truck Torque!* There's more "go" with more economy because engine, transmission and axle are balanced to match truck, traffic, terrain and job *exactly!*

Longer Engine Life

INTERNATIONAL heavy-duty V-8's combine rugged, all-truck design with big 401, 461 or 549 cubic inch displacements to develop full horsepower without life-shortening stress or strain. Exclusive "wet" replaceable valve guides, fully machined combustion chambers and other endurance features cut your maintenance costs.

Whatever your hauling problem, there's a heavy-duty INTERNATIONAL Truck with True Truck Torque V-8 engine to handle it. Proof? See the statements of INTERNATIONAL heavy-duty V-8 truck owners who do the same truck job you do . . . at your INTERNATIONAL Dealer!

INTERNATIONAL model V-225 tractor with 549 cu. in. V-8 engine

INTERNATIONAL model VF-192A dump with 401 cu. in. V-8 engine

International Harvester Company, Chicago
Motor Trucks • Crawler Tractors
Construction Equipment • McCormick®
Farm Equipment and Farmall® Tractors

INTERNATIONAL TRUCKS cost least to own!

Ton-Mile Tax Is Up for Revision . . .

. . . in New York. The Democratic Administration has announced it will propose changing the ton-mile tax during the current session of the legislature. The proposal has bipartisan support.

Revenues will not vary . . .

. . . to any great degree under the new tax structure which is proposed, but the liability of individual companies will be greatly altered if the measure is adopted. Some companies may pay almost twice what they do at present and others may pay substantially less.

In the neighborhood of 20,000 trucks not presently liable would be subject to taxing. The ton-mile tax is now paid on 190,000 trucks using New York highways, state figures show.

Bookkeeping would be reduced...

. . . for trucking companies paying the new tax. In the past, this has been one of the principal complaints of truckers. Many claimed that the expenses of bookkeeping equaled the tax paid.

The proposed changes are also said to assure a reduction in the state's cost of administering trucking taxes by eliminating many auditing procedures.

Under the suggested tax system, liability would be measured by the unloaded weight of the vehicle, instead of its loaded weight. This would eliminate the need for weighing stations and result in faster truck movement within the state. The present system of applying the tax rate based on weight to the number of miles would be continued.

Main boosts for truckers . . .

. . . would apply to fleets carrying automobiles, milk, gasoline, fuel oil and similar cargoes. The rise in taxes is due to the fact that unloaded mileage will now be subject to taxing.

Truckers carrying bulky but light goods, such as television tubes, empty paper boxes and mattresses, would also feel an increased squeeze. A corresponding relief would be felt by fleets hauling heavy cargoes.

The new tax would start . . .

. . . on trucks with an unloaded weight of 7000 lb and would rise with the increase in weight. The present tax starts with a loaded weight of 18,000 lb.

The change, first suggested in 1954, has been worked out in consultations during the last year between the State Tax Department and the Joint Legislative Committee on Carrier Taxation. Disagreement within the industry is cited as the cause of the long lapse. The bills were due for introduction at press time. A public hearing is tentatively scheduled for Feb. 19.

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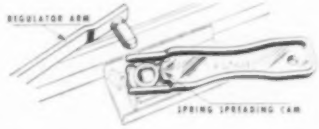
FREE CATALOG. All the essential K-D Tools completely described and illustrated in 32 page book. Write for your copy K-D MFG. CO., LANCASTER, PA.

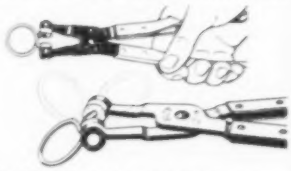
MAKE HARD JOBS EASY

SAFE BATTERY HANDLER

K-D 140. To install, remove and carry batteries with safety and ease. Quick acting screw with T-handle for speedy, safe operation. Grips battery securely for tilting and maneuvering in tight places.



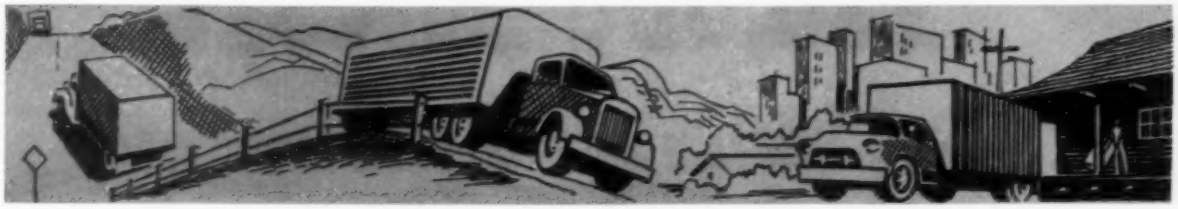
NEW *K-D 438* Window Regulator Arm Remover. Services Ford-built since '52 without taking roller assemblies apart. Spring clip remains in place!



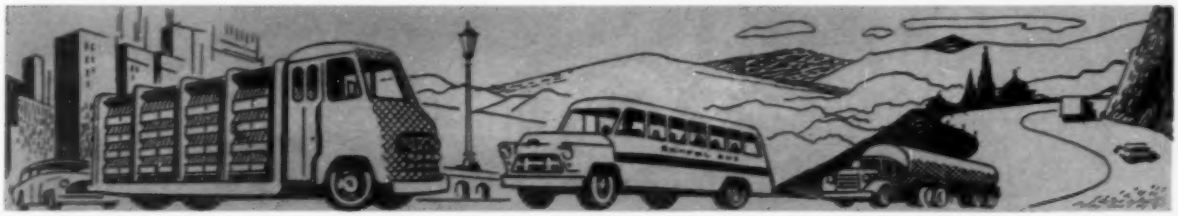
K-D 428 HOSE CLAMP PLIERS. Removes, installs all sizes wire clamps. Swivel jaws get in anywhere.

Got the K-D CYLINDER HEAD HOLDER in your shop? Holds all sizes in any position. LOW PRICED!

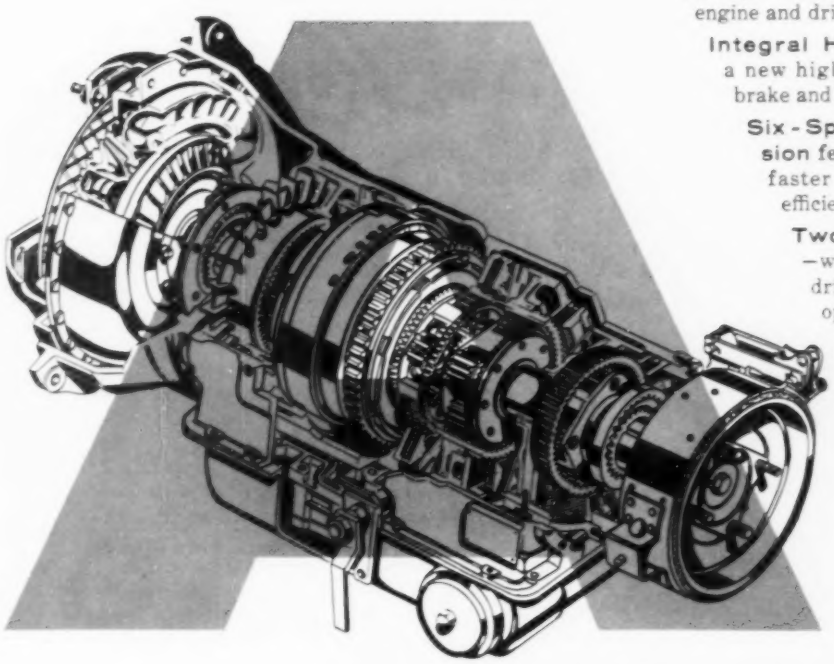
Whether you haul uphill—downhill—or all around the town



—the Allison Fully Automatic Truck Transmission will enable you to haul more payload—faster—safer—and at lower cost than



ever before—in every type of trucking service



Only the Allison *fully automatic* truck transmission gives you *all* these cost saving features:

Torque Converter featuring direct-drive lockup—boosts operating efficiency—slashes engine and drive-line maintenance.

Integral Hydraulic Retarder—brings a new high in road safety—a new low in brake and tire maintenance.

Six-Speed Automatic Transmission featuring Triple-Drive Range—for faster trip time—increased driver efficiency.

Two Power Take-Off Openings—with exclusive torque converter drive for more power and faster operation of auxiliary equipment.

Allison Automatic Transmissions are currently sold by leading truck manufacturers under various trade names. Find out how an Allison fully automatic truck transmission can repay its modest cost many times over in *your* trucking operation. See your truck dealer or write:

ALLISON DIVISION OF GENERAL MOTORS, Indianapolis 6, Indiana

Allison TORQMATIC® DRIVES

"230,000 miles so far...

Manufacturers of trucks, tractors, trailers offer Multi-Luber to help you slash operating, maintenance costs, boost net profits

Hundreds of thousands of test miles prove:

- Multi-Luber increases operating efficiency of Trucks, Tractors, and Trailers to a uniform maximum.
- Eliminates man-hours and equipment down-time required for conventional chassis lubrication.
- Increases service-life of bearings and moving parts . . . reduces cost of replacing bearings damaged due to inadequate lubrication.
- Insures positive, dependable performance with uniform efficiency regardless of variations in temperature and weather.
- Resists deteriorating effects of dust, mud, snow and ice . . . sturdy construction . . . engineered to last.
- Prevents contamination of lubricant . . . sealed System assures application of refinery clean oil each time MULTI-LUBER is cycled.

Lincoln

LINCOLN ENGINEERING COMPANY
Division of The McNeil Machine & Engineering Co.

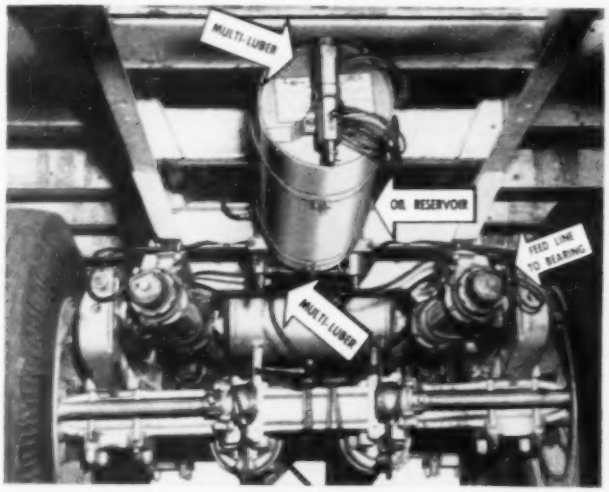
...and no repair or parts replacement on trailer" with

Lincoln Multi-Luber*

automatic POWER LUBRICATION

"The highest mileage we have ever recorded on any trailer equipped with the GT unit was approximately 80,000 miles before overhaul. The first Fruehauf unit equipped with automatic oiler has recorded approximately 230,000 miles so far with no repair or parts replacement. There is no evidence of slack or wear now."

E. H. Stokes, ***Maintenance Supervisor***
Osceola Foods, Inc.
Osceola, Arkansas



View from rear of trailer showing air-operated Multi-Luber units mounted on 7-gallon lubricant reservoir. Feed lines supply lubricant to axle hanger bracket assemblies, brake cams, slack adjusters.

Lubricate while you operate!

Multi-Luber automatically cycles with application of the brakes, forcing a measured quantity of refinery-pure lubricant under high pressure into every bearing. Bearing surfaces are constantly flushed, and are assured a uniform protective film of lubricant whenever motor is running.

For full information . . . write now for Bulletins 532, 533, and 534.

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NEW P-I-E UNITS GAIN EXTRA 1,000,000 POUNDS PAYLOAD

Pacific Intermountain Express' recent purchase of 280 new aluminum vans, tankers and tractors adds up to approximately a 600-ton slash in deadweight that is translated directly into extra payload. As these new lightweight units roll over the 17,000-mile route system, each one hauls up to 5,000 pounds of added payload per trip for bigger revenues, year in and year out. These added profits are protected, too. With many units rolling on Alcoa® Aluminum Forged Disc Wheels, P-I-E gains extra tire and gas mileage. Further, aluminum equipment keeps maintenance costs low and eliminates expensive periodic paint jobs. It's no wonder that P-I-E has turned to aluminum more and more!

You, too, can get extra revenue

For authentic case-history reports and additional facts, write for your free copy of *The Road to Payload Profits*. Address Aluminum Company of America, 1877-B Alcoa Building, Pittsburgh 19, Pennsylvania.

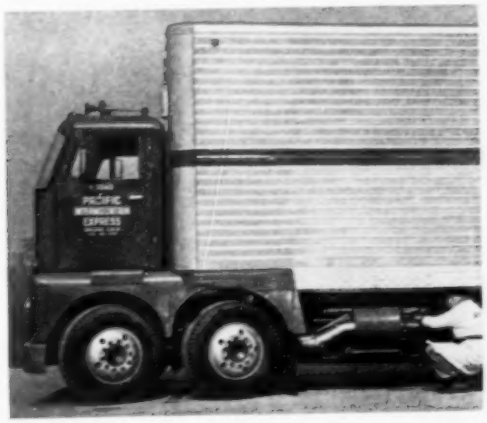
WE CHOSE ALCOA ALUMINUM MILL PRODUCTS

Your Guide to the Best in Aluminum Value

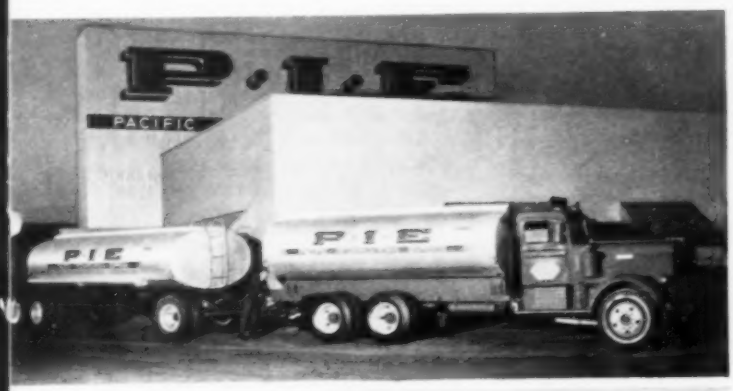
"ALCOA THEATRE"
Exciting Adventure
Alternate Monday Evenings

The Strick Trailer Company built P-I-E's 135 "High Cube" trailers. Operating throughout the western two-thirds of the U.S., P-I-E's new units stay new-looking longer with minimum maintenance.

Alcoa Aluminum makes the big difference



P-I-E's 20 new tractors, built by Kenworth Motor Truck Company, cut down on deadweight by a total of approximately 60,000 pounds. Major aluminum applications include frame rails, cabs, transmission housings, forged disc wheels and many other structural and accessory parts. Less weight means higher performance and less brake wear.



Tankers fabricated of Alcoa Aluminum by the Beall Pipe & Tank Corp. deliver extra revenue. They carry 300 more gallons per trip than tankers fabricated from other materials and, at the same time, remain under legal load limits.

Pacific Intermountain Express is one of the country's leading motor carriers. Brown Trailers, Inc., has just delivered 100 new 2,600-cu-ft Cushionair trailers weighing only 7,680 pounds (vs 9,620 pounds for conventional aluminum trailers of the same size), and equipped with Alcoa Aluminum drop-center forged wheels and high-strength aluminum flooring and slat lining.

NOW... 2 TORQUE Ranges
(to 900 Foot pounds)

both from one
STURTEVANT
TORQUE WRENCH

Now you can do high torque work with a Sturtevant Torque Wrench of normal capacity range—small in size—light in weight—with fine increment markings and moderately priced.

With a new Multi-range, Multi-purpose Adapter you can step up the capacity of your Torque Wrench to a new high range and you can plug in any drive end you want . . . Box wrench, ratchet, drive square for sockets.

All drive end accessories are interchangeable and stock items.

In this way each Sturtevant Torque Wrench effectively equals two complete sets of ordinary single purpose Torque tools.

WIDE CHOICE OF INTERCHANGEABLE DRIVERS

Only Torque wrenches with the Sturtevant patented pivoted handle can be accurate with adapters.

write for No. SD-77 catalog sheet

P.A. STURTEVANT CO.
ADDISON QUALITY ILLINOIS

Movers See Another Good Year Ahead . . .

. . . in 1958, John Sloan Smith, president of Aero Mayflower Transit Co., Inc., has predicted that state-to-state population shifts will continue at least at the same volume as 1957, "a banner year" for movers according to Smith. "If anything, I wouldn't be surprised if there were more moving about, not less," he says. In 1957, an estimated 35-million people moved from one home to another and some five milli n moved from state to state.

"The trend nowadays . . . "

. . . says Smith, "is toward centralization, toward locating new plants and offices closer to the supply of labor and raw materials, and closer to the potential customer. That means a constant shifting of personnel because it costs much less to move a man and his family than to hire a new man on the scene and train him all over again."

Americans spent $1.5-billion . . .

. . . on interstate household moves in 12 years following World War II, Smith says. The 1957 total is expected to be about $245-million, an all-time high.

U. S. Census Bureau figures show that from 1946 through 1947 an average of 20% of the nation's population annually shifted from one home to another. Based on a projected U. S. population of 190-million in 1965, this means as many as 40-million people might be moving during the course of a year.

The move West has slowed . . .

. . . during the last few years, according to Aero Mayflower statistics. "At the same time," according to Smith, "we have noted that states like Missouri and New Jersey suddenly have made a sharp turnabout and are now showing a gain in new residents, after many years of a reversing trend. Minnesota and Michigan, and to some extent, Wisconsin also seem to have put a brake to the flow of outgoing traffic." The South is also showing gains as industry continues to move in.

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IN YOUR NEIGHBORHOOD WITH:

HEYER BIG SCREEN 8½" DYNA-VISION®

This modern TV type Instant Engine Analyzer Attracts New Customers and Increases Sales of Parts and Service. Act at once and beat your Competitors to the Punch.

Now you can *completely check* engines in a few minutes. You can write a work order immediately and only remove parts that need service. Dyna-Vision saves hours every day, increases your profits and pleases customers who like this new fast method that pinpoints troubles *instantly* while they wait.

Dyna-Vision will draw customers to you like a magnet. Don't delay, every day you continue using your conventional Tune-up equipment you are wasting hours—and dollars. Frankly you can't afford to be without Dyna-Vision. *Why not be first in your neighborhood?* (Prices start as low as $450.00, or 46¢ per day.)

MODEL 538

ONE OF 7 MODELS TO CHOOSE FROM

8½" Dyna-Vision Projector on floor stand with space for 2 extra Tune-up units if desired later.

PRICE $535.00

$53.50 down, 54c per day

MODERNIZE YOUR PRESENT MOTOR TUNER . . .

in 30 minutes with the completely self-contained Conversion Kit.

MODEL 335K

Complete with adapters for mounting on all Sun, Allen, King or earlier Heyer Motor Tuners.

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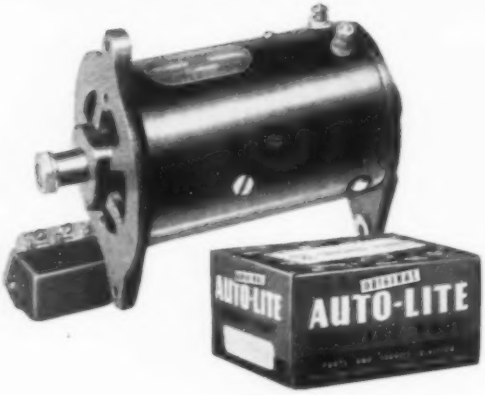
Less Down Time, Lower Maintenance Costs When You...



AUTO-LITE SPECIAL DUTY GENERATORS with matching voltage regulators are designed specifically for vehicles that need high generator output at all speeds. Low cut-in and high output at low RPM prevent down time from discharged batteries caused by low-speed and stop-and-go operation. Gives completely safe operation at high speeds, too. Available for most 6- and 12-volt applications.

AUTO-LITE STA-FUL BATTERIES are proved by a two-million-mile test to be the finest batteries money can buy. The Sta-ful *extra liquid reserve* offers additional protection for rugged fleet operations. Available dry-charged or wet, Auto-Lite Sta-ful *needs water only ⅓ as often*. Heavy case construction and fibre-glass separators assure long life in the most severe service. A full line in either 6 or 12 volts.

INCREASE PAYLOAD PROFITS WITH . . .

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SPARK PLUGS
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WIRE AND CABLE
ORIGINAL SERVICE PARTS

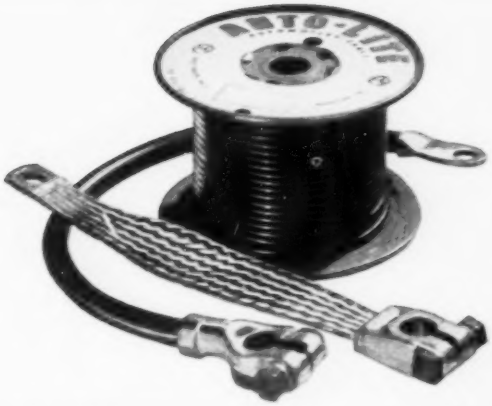
THE ELECTRIC AUTO-LITE COMPANY, TOLEDO 1, OHIO

Standardize on Auto-Lite!

Ignition-engineered AUTO-LITE electrical equipment keeps your fleet operating at full profit

Your fleet's service performance, and your profits, depend on the reliable operation of your vehicles' starting and ignition systems. For that reason you can't afford to take chances with anything but the best when new parts are needed. Ignition-engineered Auto-Lite electrical equipment assures top performance and long service life in the toughest fleet operation.

AUTO-LITE SPARK PLUGS are ignition-engineered to give top performance in all types of vehicles. The complete line includes the Auto-Lite Transport Spark Plug with heavier insulator and over-sized electrodes for extra-heavy service . . . and the Auto-Lite Resistor Spark Plug with Power Tip that gives overhead-valve passenger car engines top performance and economy at all speeds.



AUTO-LITE WIRE AND CABLE is available for all cars and trucks. Auto-Lite "Neosheath" Spark Plug Wire has Neoprene insulation that resists heat, oil, ozone, and other harmful agents. Plastic and "Flextrand" Primary Wire is available for every need. "Power Line" Cables have exclusive "Power Line" terminals with steel inner core that holds shape—keeps full contact for full power.

Send now for full information on the new AUTO-LITE NATIONAL FLEET ACCOUNTS PROGRAM that can mean substantial savings for you in electrical maintenance costs.

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Most experienced...by far

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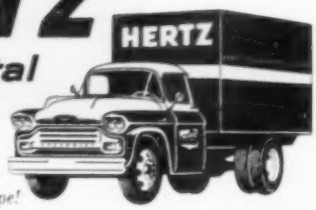
Truck rental



Hertz—the world's oldest and largest truck rental service—rents Chevrolets or other sturdy trucks in any size, any type!

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Helps You Turn Out Jobs Better and Faster!

- Gives you a straight synthetic system for spraying enamel jobs on passenger cars, trucks and buses.
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- Provides firm bond between metal surfaces and finish coat on steel and aluminium.
- Does not lift old enamel surfaces.
- Has outstanding color hold-out . . . Finish coats dry with beautiful even gloss on its smooth, level surface.
- New SPEED-SAND also makes a good non-sanding primer. Just spray one full wet coat, let dry for half an hour, then apply enamel color coat.
- SPEED-SAND is available in White DPS-8, Gray DPS-30, Cream DPS-80, and Red Oxide DPS-70.

You'll find you can reduce time and labor costs with the new SPEED-SAND Synthetic Primer Surfacer. Try it on your next refinishing job.

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PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

Trucking Is Heavier and Bigger . . .

. . . than ever before, according to a recent study by the Bureau of Public Roads. The Bureau's statistics indicate that frequencies of freight-carrying vehicles weighing 30,000, 40,000 and 50,000 lb or more reached a new high in 1956.

Since 1936, the number of trucks weighing 30,000 lb or more, has increased almost five times; for the 40,000 lb or more class, over 13 times; and for 50,000 lb or more, 31 times. From 1951 to 1956 the frequencies increased 11%, 24%, and 45% respectively.

Average axle-weights varied . . .

. . . in 1956, the study shows. Axles weighing 18,000, 20,000 and 22,000 lb or more showed increases over '54 and '55; but during the year 1956 there was a decrease of 8%, 15% and 14% in the respective axle-weight categories.

Travel increased 28% . . .

. . . on roads and streets in the last five years—with the greatest increase, 31%, in rural areas, compared with 24% in cities. Passenger car travel exceeded all other types, with increases of 29% compared with 22% and 12% for trucks and buses.

Main rural roads chalked up about 12% of rural mileage, carrying over 67% of country traffic. Approximately two thirds of all truck travel in rural areas was performed on these roads. About one third of this travel was by truck combinations. Passenger car and bus travel on main roads increased 26% between 1951 and 1956; single-unit truck travel, 22%; and truck-combination travel, 27%.

In 1956, 57% of all freight-carrying vehicles on the road were loaded. They weighed an average of 24,200 lb. For the 1951-56 period, weights of loaded single-unit trucks decreased over 3%. Those of loaded combinations increased about 6%. Single-unit trucks in '56 carried loads during 51% of their travel, compared with 60%-65% during the 1934-41 prewar period.

Average loads carried . . .

. . . by single-unit trucks increased from 1.86 tons in 1936 to 2.39 tons in 1956, a 28% boost. Combinations increased in weight from 6.90 tons in 1936 to 11.51 in 1956, an increase of 67%.

The volume of freight hauled in 1956 by single-unit trucks was 41.2-billion ton-miles; and by combinations, 130-billion miles.

The commonest load-carrying single-unit trucks (2-axle, 6-tire) accounted for 25% of truck travel in '56, but less than 16% of ton-mileage. Truck-tractor and semitrailer combinations accounted for 30% of travel and 67% of ton-mileage.

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Testing Equipment

For the Mechanic Who Wants to do the Job Right

C. E. NIEHOFF & co.

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For best results under high braking temperatures

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HEAVY DUTY BRAKE LINING

is engineered to function efficiently even under today's severe braking requirements

You'll like the way new Wagner Lockheed Brake Lining resists heat without appreciable loss of friction and wearing qualities.

This heavy-duty lining is engineered to meet the rigid demands of modern over-the-road driving. It is unsurpassed for quick, safe, smooth stops.

YOU'LL LIKE the LONG WEARING QUALITIES of Wagner Lockheed Brake Lining. It wears slowly and evenly, and brakes require fewer adjustments even though subjected to heavy-duty service under severe driving conditions.

UNIFORM IN DENSITY, composition and frictional qualities throughout its entire service thickness . . . this top-quality lining will not compress, absorb moisture, or deteriorate with age. Contains no harmful materials to damage drums.

WAGNER LOCKHEED LINING and BLOCKS are available in hundreds of sets; and slabs are made in combinations of radius, thickness and width for application on practically every heavy-duty vehicle brake.

You can benefit, too, by buying all your brake service needs—Wagner Lockheed Hydraulic Brake Parts, Fluid and Lining—from one dependable source.

Remember, safe brakes protect lives.

EXCHANGE SHOE SETS save you time and money. They are relined with Wagner approved lining—riveted or bonded. For details on complete line—including Wagner Lockheed Brake Parts and Fluid—write for Catalog AU-500.

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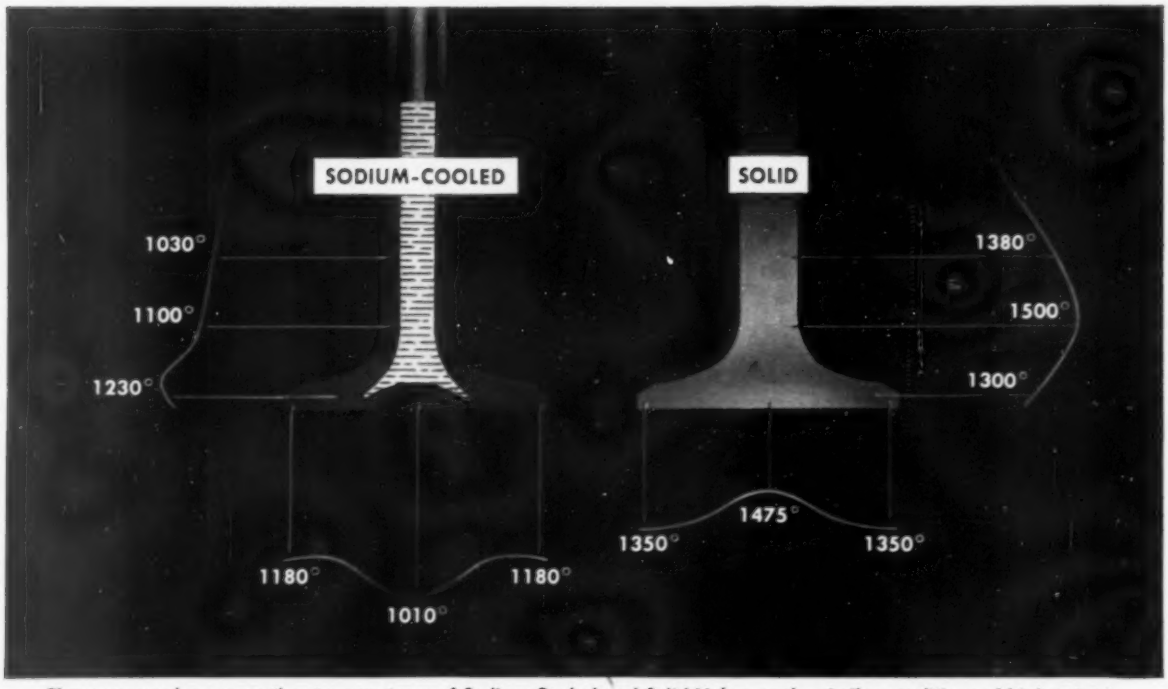
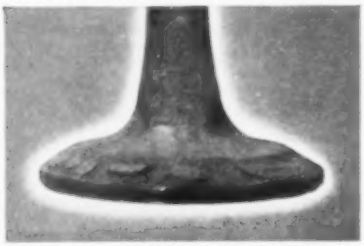
Eaton Sodium-Cooled Valves Run Cooler—



These curves show operating temperatures of Sodium-Cooled and Solid Valves under similar conditions of high output.

Eaton Sodium-Cooled Valve after 110,000 miles—still in good condition.



Conventional valve after 35,000 miles in same type of operation as Sodium-Cooled Valve shown above.

Cooler Valves Last Longer

Today's trend in engine design toward higher speeds and more economical fuel-air ratios results in higher temperatures for many operating parts—including exhaust valves. These higher temperatures sharply reduce valve resistance to corrosion and distortion, definitely limiting valve life. Eaton Sodium-Cooled Valves, operating at considerably lower temperatures, maintain corrosion resistance and strength.

In general, maintenance of Eaton Sodium-Cooled Valves in heavy-duty truck engines is scheduled only at time of major engine overhaul. No in-between trips to the shop are necessary for valve servicing. Engine output is maintained at high levels over long mileages. In many millions of miles of heavy-duty operation, Eaton Sodium-Cooled Valves have proven their ability to keep trucks on the road and out of the shop.

Eaton engineers will be glad to work with you in applying the benefits of Sodium-Cooled Valves to your engines.

EATON

VALVE DIVISION
MANUFACTURING COMPANY
9771 FRENCH ROAD • DETROIT 13, MICHIGAN

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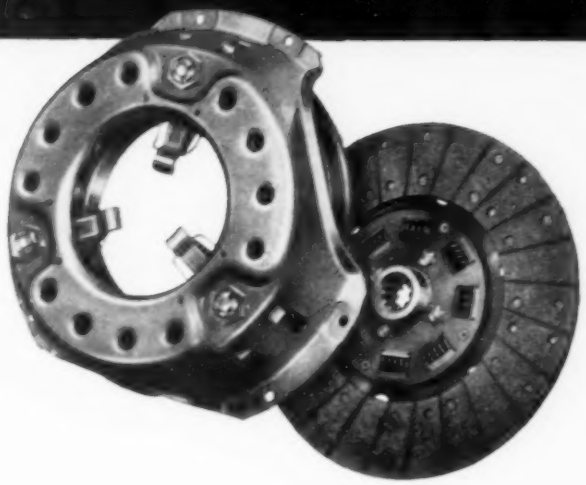
Now, a LIPE 12" heavy-duty Direct Pressure Clutch



FIRST in the entirely new Lipe DPB Line...

featuring:

- **Maximum mechanical efficiency!**
- **Optional needle-bearing linkage!**
- **Stronger, lighter stamped cover!**
- **Full ventilation for cooler running!**
- **Fade-resisting chrome silicon springs!**
- **Spring heat-insulating washers!**
- **Lower pedal load!**
- **Competitive price!**

Here's the first in a *new* series of Lipe direct pressure clutches to supplement the already-famous DP Line! With the introduction of the new 12" DPB single and two plate, Lipe direct pressure clutches are available for all applications involving gross vehicle weights of 19,000 lbs. and up. Additional DPB models in 13" through 15" single and two plate sizes will be available soon.

The new Lipe 12" DPB clutch is interchangeable with many other models and is easily adapted to any present vehicle requirements. Improved design, a simpler, sturdier internal lever system, and Lipe's precision manufacturing and testing assure you extra clutch mileage in your vehicles. For a complete, first-hand story about the Lipe 12" DPB and the entirely new DPB Clutch line, see the authorized Lipe distributor located near you.

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All the things you've hoped for are achieved in the

***White* 4400 TD**

LONGER ENGINE LIFE—The NH-180 Engine with the reduced bore runs cooler with lower exhaust temperatures. Replaceable, wet-type cylinder liners assures new engine life after rebuild. Simple PT fuel injection system has 125 to 250 fewer parts than other type fuel systems and gives low maintenance cost, top fuel economy.

RUGGED HIGH MILEAGE MAJOR UNITS—Proved units like the multi-speed transmission with single shift levers and perfect gear splits for maximum road performance . . . and the White-manufactured high-torque capacity lightweight single reduction rear axle with the capacity to pull maximum payloads.

LOWEST CHASSIS MAINTENANCE COSTS—White's proved chassis design with superior cab mountings, chrome manganese heat treated frames, exclusive tubular cross mounts, all of high-quality materials, and bolted construction.

THE WHITE 4400TD CAN BE TAILORED TO YOUR EXACT OPERATING REQUIREMENTS KNOWING THAT ALL RELATED UNITS ARE ENGINEERED TO YOUR JOB. WHEELBASES FROM 140" TO 212". FRAME SIZES ¼" (standard), 5/16", 3/8", SINGLE CHANNEL, AND 3/8" x ¼" DOUBLE CHANNEL (optional).

King of the Highway...

the ***White*** **4400** ***HIGH MILEAGE DIESEL***

SERIES

Talk about royal performance! For King-Size Mileages and Dependability . . . it's in a class all its own!

Everything about this monarch of the road is proved by billions of low-cost miles. Yet it's new right where it means the most—for 1958 high-mileage, economical service.

PROVED CHASSIS STRENGTH AND LOW MAINTENANCE COST

PROVED DIESEL EFFICIENCY

PROVED LOW FUEL COST AND HIGH MILEAGE BEFORE OVERHAUL

White has IMPROVED on all these in this new King-size tractor—the 4400TD!

Reduced displacement by smaller bore of the proved NH-220 Diesel Engine in the NH-180 version develops 180 horsepower under truly ideal conditions for greater fuel economy and much longer life—a proved diesel far superior to any other available.

Chassis design refinements that give it perfect balance, better riding qualities, and greater strength and safety. New high-torque capacity rear axles . . . new accessibility . . . low center of gravity.

No wonder your White Representative is enthused about this great, new Diesel. It introduces to the trucking industry a truly modern highway tractor with the great NH-180 Diesel—engineered for today's operating conditions.

Find out how this great White 4400TD means king-size operating profits in *your* business.

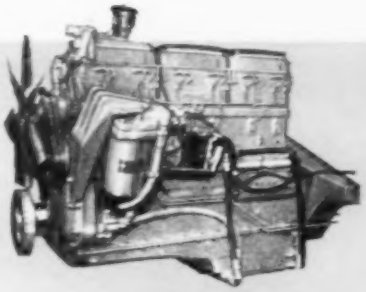
THERE'S NOTHING LIKE IT IN THE INDUSTRY!

ON THE HIGHWAY TODAY!

Matches or Betters The Fuel Economy of Any Other Diesel . . . Plus Far Superior Performance

Everything about this new King of the Highway—engine, chassis units, and design—engineered for today's business—higher annual mileages, tighter schedules, bigger payloads—yet operating costs are brought down. It's the newest product of White creative engineering. Another convincing proof that White TRUCKS KNOW *YOUR* BUSINESS.

Proved long life, dependability and economy for highway requirements ranging from 50,000 gross to 80,000 regardless of terrain.



Proved Low Cost . . . up to 300,000 miles before and between major engine overhauls

Developed with the same components used in America's top-performing diesel—the proved NH-220 Cummins, the NH-180 naturally aspirated diesel develops 180 horsepower. The cylinder bore has been reduced from 5¼" to 4⅞", lowering the displacement to 672 cubic inches. It will be running cooler, with lower exhaust temperatures, for higher mileages. That means top fuel economy—longer life.

NO OTHER ENGINE WILL MATCH ITS LIFE, SUPERIOR PERFORMANCE, FUEL ECONOMY, AND LOW MAINTENANCE COST.

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Cleveland 1, Ohio

White

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THE TRUCK THAT KNOWS YOUR BUSINESS

Use this CHAMPION "know how" to get

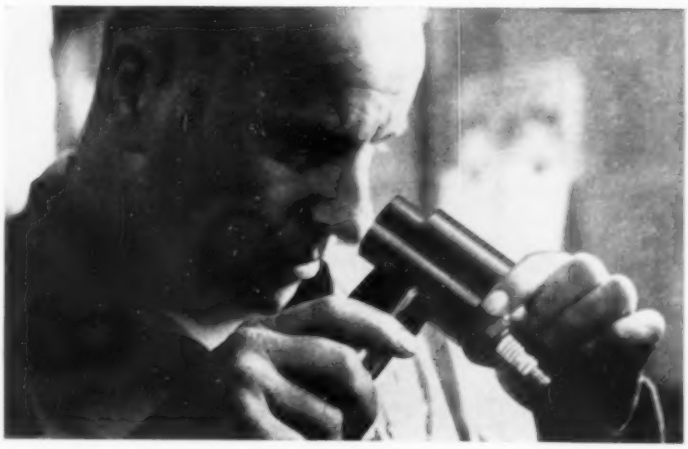
William D. Dilday (center), Champion Service Engineer and Richard G. Roesing (right), Champion Representative, pay a special service call on Walter H. Scott, Shop Foreman of Heim's Express Inc., Irwin, Pa.

EXCLUSIVE TECHNICAL HELP

Your Champion representative draws upon a vast stockpile of steadily growing fleet ignition experience. He can team up with the Champion Field Engineers, recognized ignition experts. Their technical "know how" is at your disposal to assure *you* top ignition performance under all operating conditions. If you're interested in getting better spark plug performance while cutting maintenance costs, ask your Champion team to call. If you haven't met them, write Champion at Toledo 1, Ohio.

CHAMPION SERVICE AIDS

Champion-developed service aids, such as the PM-1 Spark Plug Viewer shown at right, make plug servicing simple and economical. Other low-cost Champion tools make it easy to clean, re-gap and set spark plugs in a matter of seconds. Your Champion supplier can give you complete information concerning these handy service aids. Ask him about them right away.



better spark plug and ignition performance

CHAMPION SERVICE TIPS
for better truck performance

Put a new series "800" Champion Spark Plug Cleaner and Tester in your shop. You'll get more efficient plug cleaning and more accurate testing—in less time.

A new filter keeps dust and dirt out of the cleaning abrasive—assures fast, efficient, uniform cleaning of every plug.

And a new type sparking-indicator tester dial shows when an old plug should be replaced. It eliminates the bother (and possible inaccuracy) of checking the old plug against a new one. This new component measures a plug against a fixed standard—gives you a more accurate means of testing.

This new, improved cleaner and tester allows your own mechanics to take advantage of Champion research and technical "know how" every day in *your own* shop.

SPECIAL APPLICATION PLUGS

Champion "know how" produced the auxiliary-gap to help operators formerly plagued by constant plug fouling during low-speed operations. These long-lasting new Champions keep these engines firing smoothly far longer than ordinary plugs. Now you can decrease number of costly cleanings and shop downtime—increase your equipment's productive time and profits, too.

RESEARCH AND PRODUCT DEVELOPMENT

Champion has the world's largest research and engineering organization devoted exclusively to spark plugs. This is where the "know how" originates that brings you maximum spark plug performance in every engine. Convert this technical experience to your advantage by installing Champion Spark Plugs in *all* your engines.

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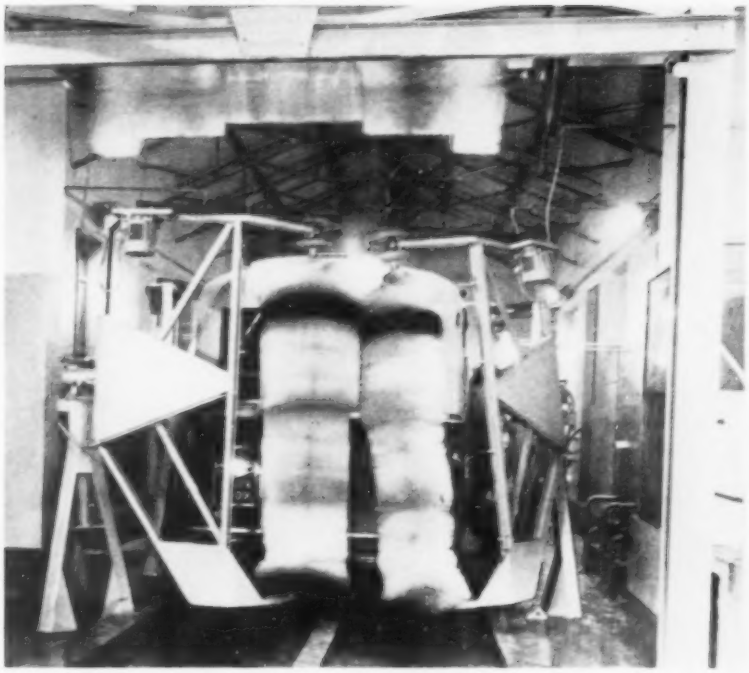

OSCILLATING BRUSHES conform to all sides of bus. Two pairs of brushes work in relays, cleaning entire vehicle in one operation.

Automatic Bus Washer Does A Two-Minute, One-Man Job

THIS FULLY AUTOMATIC bus washer, the Emanuel Tunnel, is operated by one man. The manufacturers, the Emanuel Co., in Turin, Italy, are looking for a sales distributor in this country.

Washing is done by two groups of rotating, oscillating brushes. One group (two separate brush units) washes the sides and rear of the bus, the other, the front and sides again.

Each brush unit has two main elements: a support, made of section iron and steel sheets (with base for floor attachment), and a section iron frame for suspension of the brush.

The frame is connected to the support by ball bearings and conical roller bearings, to allow adaptability to any bus profile. This connection allows 15-deg oscillation (at a horizontal rotation of 180 deg for the first brush group, and 90 deg for the second).

Rotation of the frame is effected by a hydraulic device mounted on the support. An electrical drive rotates the brushes.

Here are the six stages in the cleaning process:

1. High-pressure cleaning of body and chassis is started by jet rotors, one in the floor and one on each side.
2. The first pair of brushes starts washing the sides.
3. The second pair starts cleaning the front as the first pair finishes the sides.
4. Then, the first brushes sponge the rear while the second pair washes the sides again.
5. Next, the first brushes return to their starting point by a 180-deg rotation as the second brushes finish the sides.
6. As the first pair starts washing the next bus in line, the second pair returns automatically to its starting point.

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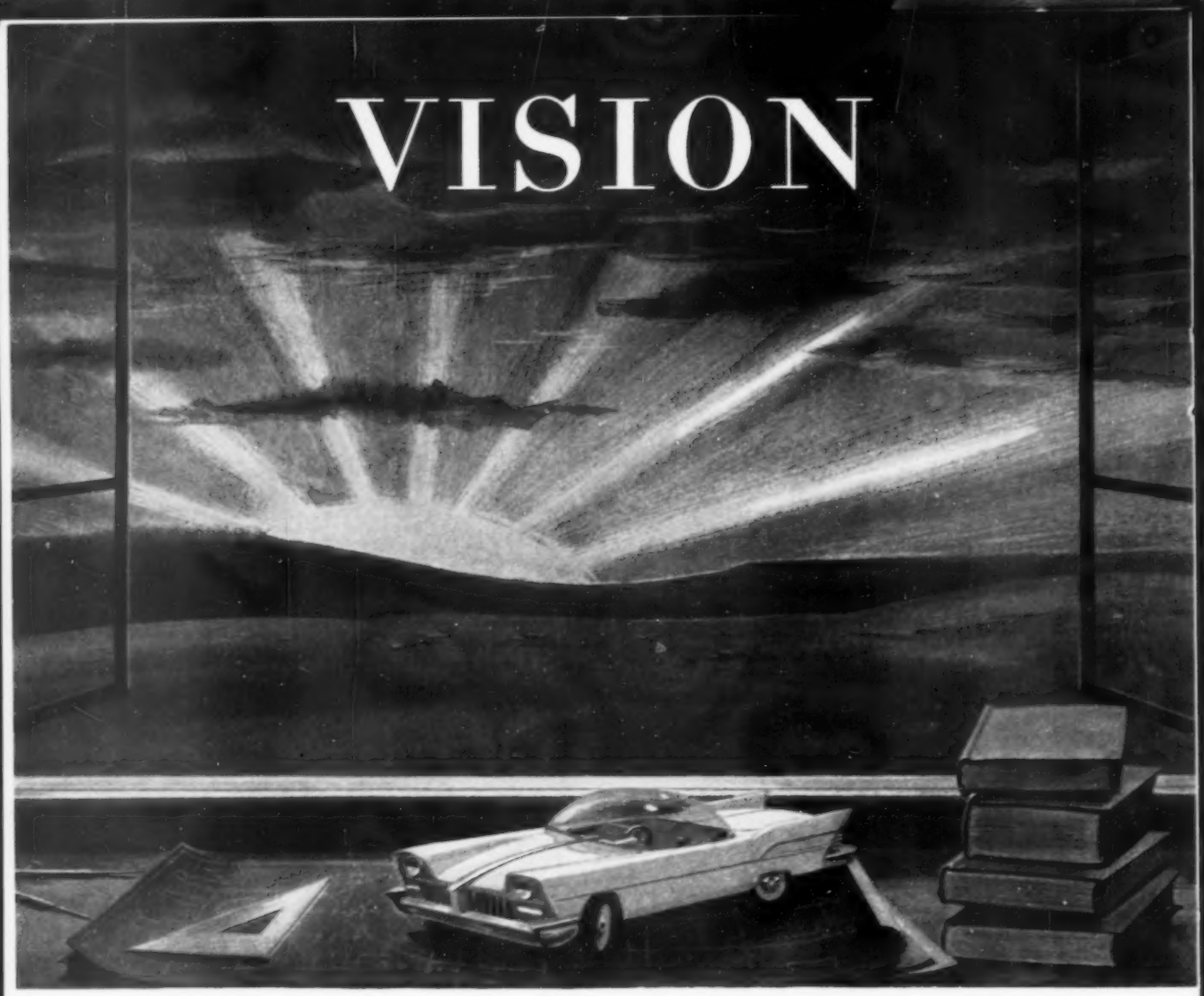
CANCER'S SEVEN DANGER SIGNALS

1 Unusual bleeding or discharge
2 A lump or thickening in the breast or elsewhere
3 A sore that does not heal
4 Change in bowel or bladder habits
5 Hoarseness or cough
6 Indigestion or difficulty in swallowing
7 Change in a wart or mole

If your signal lasts longer than two weeks, go to your doctor to learn if it means cancer.

AMERICAN CANCER SOCIETY



LOOKING TO THE FUTURE—PRODUCING FOR TODAY!

Progress has been the keynote of the automotive industry. Today's achievements are but challenges for the accomplishments of tomorrow.

Over the years Bendix Products Division has contributed significantly to automotive progress. From four wheel brakes to power braking and power steering, Bendix has pioneered and developed many of the industry's most notable advancements.

And today Bendix Products Division is planning new and better products for the cars and trucks of tomorrow.

That's why the industry looks to Bendix* as a source of new ideas, as well as a volume manufacturer of automotive components.

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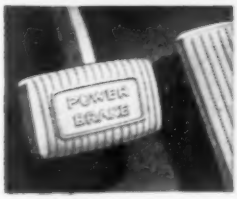

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Bendix Power Steering

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ACROSS THE EDITOR'S DESK

WHEN YOU'RE CONSIDERING training future executives, the following incident may give you food for thought: a couple of weeks ago we sat in on an off-the-record meeting with one of the largest manufacturers in the country. This company's management believes it will have to double its executive and managerial force by 1970, and has spent the last five years studying the problem. Among the important things developed through research was the fact that the executive of the future would be making his decisions and leading his people in a world we know little about today.

From this, the company has concluded present-day business training is inadequate because it's based on what happened in the past, not what's going to happen. They won't release any detailed information on what they've done to solve the problem because they're not sure their system is right. But they've actually set up their own business college as part of the program, which shows they think they're on the right track.

It looks from here as though many fleet owners are going to be faced with the same problem in the next 15 to 20 years . . . and it's going to be a tough nut to crack . . . specially since we're short of topnotch executive and managerial talent, even today. The answer can only be forethought and action—action now. To see what Transcon Lines is doing, turn to p 90.

Did you know that there are at least 50 methods of calculating the thickness of pavement in use in the United States? Six are most commonly used. With the same problems and conditions, these six methods result in pavement thicknesses that vary as much as 50%.

From where we sit there's quite a difference between a 10-inch and 15-inch thick road, for example. And, yet, some people would have you believe that building roads is "scientific."

An anonymous reader has been writing us once a month for the past four months. We know he lives in Washington, D.C., uses a typewriter well and has a good sense of humor. All of his notes have been on two-penny post cards and all of them have been about our stock listing (p 13).

The first note complained that we didn't have a complete listing. We corrected this the next month. The next note made a good suggestion. We used it the next month. The third note found an error in figures. We set up a double-checking system so it wouldn't happen again.

In the middle of January we got the fourth note which read: "*Your self-appointed critic of the monthly stock market fleet price listing is downcast and thoroughly frustrated. What can I snarl about this time? I regret to inform you that the December, 1957, column is faultless.*" We feel kind of sorry it is. We enjoyed Mr. Anonymous' notes a great deal.

For the record: Association people are in a funny position. They can please their members and do a good job. They can make their members mad as hell and still do a good job. Or they can do little or nothing—and because their members are busy trying to make a living, they might still be thought to be doing a good job. But the thing that always puzzles us is this: if an industry loses its position and stature over a period of time, what's the association been doing?

We've often wondered why business men have not tried to sell business as a career to the moppet set. You can buy books for kids that tell how great it is to be a doctor, a scientist, an engineer, etc., but you can't buy one that says how great it is to be a businessman. Yet if you match all the careers for excitement, we doubt if you can find one more exciting than that of a normal business executive.

The New York Life Insurance Co. has been running a continuing series designed to provide career information on various jobs. These ads are good but not what we have in mind. They tell what's done, how much money can be made, etc. But they don't tell how exciting and challenging most business executive careers are.

Caswell Speare
Editor

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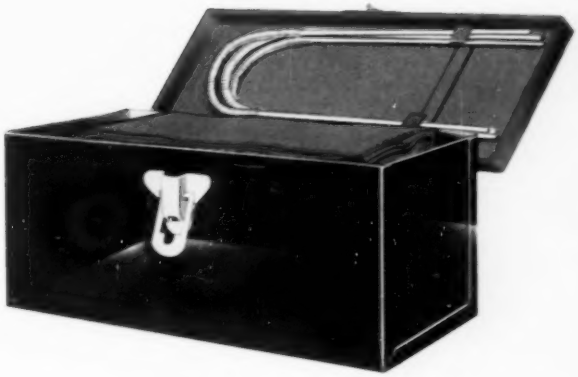

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